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ABSTRACT

The Sex Equity in Educational Leadership (SEEL) project was designed to develop a model for achieving sex equity in school administration in Oregon that could then be adopted by other states. This volume is one of three final documents produced by the SEEL project. The first chapter, describing the project as it was originally conceived, is followed by a discussion of the project site, funding agency, special skills and interaction of staff members, and the changes that occurred over the years in the activities proposed to implement change. Chapters 3 to 5 examine in detail the various change attempts and assess their effectiveness. These include efforts to raise individuals' awareness of sex inequities in education and to encourage individual women to aspire to administrative careers; activities designed to alter the organizational practices and procedures that have helped maintain the sex imbalance in administration; and attempts to deal with the hiring process. The last two chapters explore the legacy left by SEEL for possible future change and develop recommendations for others. The appendix contains the raw data and complete results of analyses of quantitative comparisons of the sex ratio on administrative jobs, in administrative training programs, and in state and national convention programs. (Author/MLF)

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Sex Equity in Educational Leadership

An Analysis of a Planned Social Change Project

Center for Educational Policy and Management
University of Oregon

EA 015 069

Women's Educational Equity Act Program
U.S. Department of Education

SEX EQUITY IN EDUCATIONAL LEADERSHIP:
AN ANALYSIS OF A PLANNED SOCIAL CHANGE PROJECT

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PREFACE

The Sex Equity in Educational Leadership (SEEL) Project was funded by the Women's Educational Equity Act and the U.S. Department of Education to develop a model that others could use to increase the representation of women in school administration. This volume is one of three final documents produced by the SEEL Project. One of these volumes is designed for women who are aspiring to or contemplating aspiring to administrative positions in schools.[1] Another volume is designed for activist groups and individuals interested in producing change in the sex ratio in administration in their own areas.[2]

While the audience for the other two volumes may also use this one, we have directed this work to those who are interested not just in how to bring about change or get an administrative position, but also in why certain kinds of change efforts may be more effective than others. We expect, then, that researchers and practitioners interested in intervention, as well as those interested in education, sex discrimination in the labor force, and social change in general, may want to read the material in this volume.

Many people contributed to the work of the SEEL Project over the three years of its existence. Special thanks are due to Joanne Carlson, for her help with the original proposal; to Jane Arends, for her work on the original proposal and during the first year, and for her continuing encouragement over the years; to Dick Carlson and Janet Hart, for their help in the first year and for their advice and encouragement afterward; and to Lloyd DuVall, for his support throughout the project. Special thanks are also due to W. W. Charters, Jr., and to John Packard, for reading and commenting on an earlier draft of this volume.

This volume represents the efforts of all the people on the SEEL staff. Part of Chapter 1 is based on material written by Patricia Schmuck, Rita Pougiales, and Mary Ann Smith. Writings by Mary Ann Smith and Rita Pougiales helped provide the basis for Chapter 2. Chapters 3 and 4 rely heavily on material written by Sakre Edson, Joan Kalvelage, Kenneth Kempner, Patricia Schmuck, and Peg Williams. Chapter 5 includes material first explored by Spencer Wyant and Patricia Schmuck. Chapters 6 and 7 rely on material by Kenneth Kempner and Rita Pougiales, especially that found in their dissertations.[3] Carole Starling helped pull together some of the data used in the analysis, and Nancy Gubka was extremely patient in typing drafts of the manuscript. In addition, Nancy Gubka, along with Kenneth Kempner and Rita Pougiales, provided many valuable insights that contributed to the analysis in the chapters that follow. The major author, Jean Stockard, was a member of the SEEL Project from its beginning. While each SEEL staff member had the opportunity to read and respond to the material contained in this volume, the personal views of the major author have undoubtedly influenced its content. Any errors that may remain in the manuscript are the responsibility of the major author.

In this volume we review the original plans and goals of the SEEL Project, discuss what happened in the attempts to implement these plans, examine why these results have occurred, and present tentative suggestions for others wanting to attain equity in educational administration. The first chapter describes the SEEL Project as it was originally conceived--the original plans and goals. In a sense, Chapter 1 may be seen as a description of the "hypotheses" that formed the basis for SEEL's "field experiment" in changing the ratio of females and males in school administration. In the rest of the volume we explore the "testing" of these hypotheses--the attempt to see if the activities and procedures proposed would indeed result in the desired changes. To put this exploration into the appropriate context, Chapter 2 discusses the site of the project, the funding agency, the special skills and the interaction of the staff members, and the changes that occurred over the years in the activities proposed to implement change.

Chapters 3 to 5 examine in detail the various change attempts. Chapter 3 focuses on attempts to raise individuals' awareness of sex inequities in education and to encourage individual women to aspire to administrative careers. Chapter 4 looks at activities designed to alter the organizational practices and procedures that have helped maintain the sex imbalance in administration. Chapter 5 examines an attempt to deal with the hiring process itself by documenting the hiring patterns within the state and informing both employers and aspirants of available vacancies and applicants. In each of these chapters the effectiveness of the activities in meeting their objectives and the effectiveness of each objective in attaining the overall goal are assessed. The cost effectiveness of the methods, their efficiency in the use of people and other resources such as time, and the comparative usefulness of other methods are considered.

Chapter 6 takes a more global view. First, we explore the legacy left by SEEL for possible future change. Then we examine whether changes that occurred in Oregon can be attributed to the efforts of SEEL or to other sources, including general trends in the society or the activities of other groups. Chapter 7 uses the information presented in preceding chapters to develop recommendations for others.

NOTES

1. Mary Ann Smith et al., Sex Equity in Educational Leadership: Women Getting Together and Getting Ahead (Newton, Mass.: Women's Educational Equity Act Publishing Center, 1982).

2. Patricia A. Schmuck, Sex Equity in Educational Leadership: The Oregon Story (Newton, Mass.: Women's Educational Equity Act Publishing Center, 1982).

3. Kenneth M. Kempner, "A Conceptual Framework for the Evaluation of Planned Social Change" (Ph.D. dissertation, University of Oregon, 1979); and Rita M. Pougiales, "A Case Study of a Social Change Project," Ph.D. dissertation, University of Oregon, 1981.

CHAPTER 1

THE PROBLEM OF SEX INEQUITY IN EDUCATIONAL LEADERSHIP AND THE SEEL PROPOSAL

Work roles and the labor force tend to be segregated by sex in all societies, and this country is no exception. For instance, the U.S. Census usually finds a slightly larger proportion of white females than white males in professional and technical positions. Yet most of the women are concentrated in nursing, teaching, and social work positions, whereas the men are much more dispersed throughout other professional and technical positions. Moreover, jobs which men hold pay much more than those which women hold. In 1977, the average salary for full-time, year-round male workers was $15,070; the average salary for full-time, year-round female workers was only $8,814, or 58 percent of the figure for males.[1]

The statistics given above generally compare men and women in different occupations. Yet sex inequities are also found within a given profession. The Sex Equity in Educational Leadership (SEEL) Project addressed the vast inequity in the representation of women and men in school administration. Below we review the nature of this inequity and the most common reasons given for its occurrence. We then discuss the proposal funded by the Women's Educational Equity Act of the U.S. Department of Education to form the SEEL Project.

THE PROBLEM

More women than men are employed in the profession of education, yet the profession is strongly sex-segregated. Table 1-1 summarizes these patterns. In elementary schools, most teachers are women. In secondary schools, about half the teachers are women. In administration, however, the situation is sharply reversed. In 1972-73, 35 percent of all the staff positions in administrative offices were filled by women, yet only 20 percent of the elementary principals, 3 percent of the junior high principals, 1 percent of the secondary principals, and just 0.1 percent of all school superintendents in 1972-73 were women.

In addition to this sharp segregation in the educational work force, the positions men hold are more highly paid, are more prestigious, and provide more authority over other adults than the positions women hold. Although school districts no longer pay men educators more than women educators simply because they are men, the administrative positions do have much higher salaries than the teaching positions. Thus, the average salaries of men in education are higher than those of women.[2]

TABLE 1-1

EMPLOYEES IN EDUCATION IN THE UNITED STATES BY SEX, 1972-73

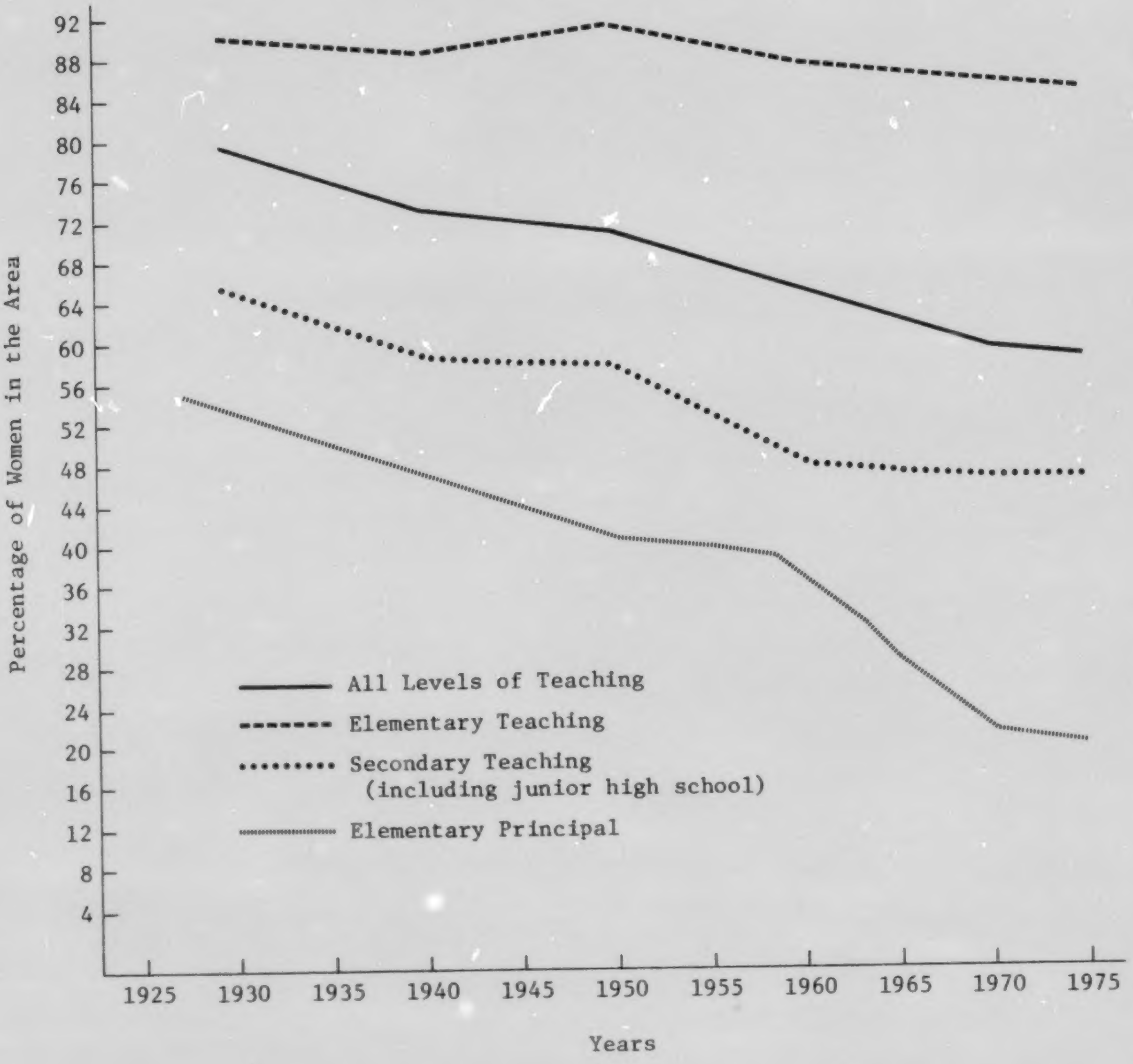
Position	Males (%)	Females (%)
Elementary school teachers	16	84
Secondary school teachers	54	46
Elementary school principals	80	20
Junior high principals	97	3
Senior high principals	99	1
Superintendents	99.9	0.1
Deputy and associate superintendents	94	6
Assistant superintendents	95	5
Other central office administrators	65	35
Total full-time professional employees	37	63

SOURCE: Andrew Fishel and Janice Pottker, "Women in Educational Governance: A Statistical Portrait," Educational Researcher 3(1976):4-7.

The patterns noted here are not new. Since the latter part of the nineteenth century, women have predominated as elementary teachers, apparently for economic reasons. A 1905 report noted that female elementary teachers were paid $650 annually, while their male counterparts were paid over $500 more than the women each year.[3] In the last fifty years the proportion of elementary and secondary teachers who are women has actually declined, leading to a somewhat more equitable sex balance in the teaching ranks. Yet there has been no comparable move toward equity in educational administration. Instead, figures from the 1920s to the 1970s indicate a decline in women's representation, at least in the administrative position of elementary principal (see Figure 1).[4]

FIGURE 1

WOMEN IN SUBAREAS OF THE EDUCATION PROFESSION, 1928-74



SOURCE: W. V. Grant and D. Lind, Digest of Education Statistics (1976 ed.) (Washington, D.C.: National Center for Education Statistics, Department of Health, Education and Welfare, 1977), p. 10; and J. Pottker and A. Fishel (Eds.), Sex Bias in the Schools (London: Associated University Presses, 1977), p. 290.

NOTE: Figures for teachers include those in both public and private schools.

A common explanation for these inequities is that women do not aspire to positions in educational administration. Women educators are just as likely as men educators to receive master's degrees, yet in comparison to their representation in the field, women pursue doctoral degrees in education much less often than men do. Moreover, women pursue sex-typed areas of study. Table 1-2 shows that women more often than men are in special education and in curriculum and instruction programs in graduate school at the master's level. Men especially predominate in educational administration programs at both master's and doctorate levels.

TABLE 1-2

GRADUATE EDUCATION DEGREES AWARDED IN SELECTED SUBAREAS BY SEX, 1975-76

	MASTER'S DEGREES			DOCTOR'S DEGREES (Ph.D., Ed.D.)		
Subarea	Men %	Women %	Total Number	Men %	Women %	Total Number
General education	64	36	17,884	66	34	1,497
General elementary education	15	85	22,748	38	62	196
General secondary education	45	55	7,585	68	32	210
Educational administration	72	28	11,823	80	20	1,497
General higher education	57	43	388	73	27	345
Educational psychology	41	59	2,356	61	39	576
General special education	19	81	7,692	57	43	208
Curriculum and instruction	34	66	3,967	57	43	654
Total	43	57	74,443	63	57	5,183

SOURCE: W. V. Grant and G. Lind, Digest of Education Statistics (1977-78 ed.) (Washington, D.C.: National Center for Education Statistics, HEW, 1977).

Yet the reason women do not aspire to administrative positions is probably that they believe those jobs to be the province of men. This belief may be reinforced by the practices of university training programs and by the hiring practices, both formal and informal, of school districts. Women are probably not encouraged to enter graduate programs in administration and to aspire to administrative posts in school districts nearly so often as men are.[5]

THE SEEL PROPOSAL

The Women's Educational Equity Act (WEEA) became law in 1974. To help implement the Act, the Women's Educational Equity Act Program (WEEAP) was established in what was then the Office of Education of the U.S. Department of Health, Education and Welfare. WEEA called for a variety of strategies to combat sex bias in education, including curriculum materials, textbooks, training programs, research, nondiscriminatory tests, and improved and expanded programs in all areas of educational training. With a limited amount of funds, WEEAP stressed the importance of "capacity building." Projects that seemed to provide products, models, or some other form of guidance for other educational organizations were given priority in funding.[6]

Many of the 64 projects funded by WEEA in its first year of operations (1976) were to develop curriculum or other educational materials. In that year, the SEEL Project was one of eight projects that focused on sex inequities in the education profession.

The SEEL Project was designed to develop a model for achieving sex equity in school administration in Oregon--a model that could then be adopted by other states. To accomplish this purpose, the proposal for 1976-78 outlined six major goals: (a) to build awareness of sex inequity in educational administration; (b) to restructure the content of training programs in educational administration; (c) to provide training and recruiting of women in educational leadership for these restructured jobs; (d) to conduct research about public attitudes, selection procedures, and career patterns in administration; (e) to build the state's capacity for continuing reform activities for educational equity; and (f) to disseminate information about the Oregon model to other states interested in similar reforms. The first three goals included most of the change-directed activities: attempts to alter individuals' beliefs and attitudes, the practices of training programs, and the procedures of other organizations. The fourth goal was included to fill gaps in the literature regarding women's underrepresentation in administration. The fifth and sixth goals were originally concerned with maintaining progress in Oregon after SEEL's funding ended and with providing help to other groups and states interested in change.

Twenty-two activities were outlined in the original proposal as strategies to meet the goals. Target audiences of the activities varied from practicing educators and administrators in the state to undergraduate and graduate college students in education and administrative training programs. Other targets were the state's requirements for administrative certification, the recruiting and training practices of administrative programs, and guidance counselors and school personnel officers throughout the state.

To help build awareness, activities such as the publication of a quarterly newsletter, participation in an extension program for practicing administrators, provision of consulting services for intact work groups on working relationships for women and men, and participation in state educational meetings were originally proposed.

To restructure training programs, the staff proposed, among other activities, to teach a course on sex discrimination in education that would eventually be included regularly in the university's curriculum. The staff also planned to change course requirements for teachers and administrators, to include content on sex-role socialization and stereotyping.

To alter training and recruitment practices, proposed activities included recruiting women to educational administration programs and organizing a two-day conference for educators on the problems of women in education.

An information exchange (the Oregon Network) regarding administrative openings and candidates, a state advisory board, and research into the benefits of job sharing were proposed as ways to help build the state's capacity for reform and to continue change efforts after the end of SEEL's funding.

Planned research projects included a survey of public prejudice against female administrators, a study of the informal procedures of screening and hiring committees, and research into the typical career patterns of women administrators.

To help disseminate information about the final model, pilot testing of SEEL's strategies and products in another state and producing a final report of SEEL's efforts and accomplishments were proposed.

The experiences of the SEEL staff in the first year of the project led to some changes in the strategies emphasized in the second and third years. Greater attention was also placed in those years on the fifth and sixth goals--building the capacity for continued reform in the state, preparing written materials for dissemination, investigating alternative work forms, forming the Oregon Network, and facilitating an organization of women administrators in the state. The proposal for the third year (1978-79) focused almost exclusively on the preparation of written documents describing the project's activities.

A total of $468,354 was spent in the three years of the project. Of this amount, $132,722 was spent on the overhead charges of the sponsoring institution. A total of $335,632 was spent on project activities and salaries over the three years of funding.[7] Table 1-3 gives a detailed breakdown of the SEEL budget in each of the three years of funding. By far the greatest portion of the budget (76 percent of the total amount spent on project activities) was allocated to personnel salaries and benefits. In addition, a good deal of the money allocated to subcontracts, consulting fees, and graphic arts and editing went to pay fees to individuals doing specific tasks for the project. When these figures are added to those for salaries and benefits, the total accounts for 87 percent of the funds spent on project activities. The only other major categories of expenditure were travel (4 percent of the total for project activities) and printing, postage and freight (5 percent of the total for project activities).

TABLE 1-3

SEEL BUDGET, 1976-79

	BUDGET YEAR			TOTAL
Type of Expenditure	1976-77	1977-78	1978-79	1976-79
Personnel salaries	67,467	80,052	70,922	218,441
Personnel benefits	10,408	12,797	12,411	35,616
Consulting fees	5,100*	0	0	5,100
Subcontracts	1,751†	27,795	300	29,846
Graphic arts and editing	0‡	0	2,000	2,000
Travel	4,666	8,104	1,980	14,750
Materials and supplies	960	904	600	2,464
Postage and freight	746	1,257	445	2,448
Printing	4,882	5,862	4,000	14,744
Telephone and telegraph	1,402	1,368	960	3,730
Data processing	150	0	498	648
Maintenance	146	80	102	328
Miscellaneous (not budgeted but spent)	3,122	2,395	0	5,517
Subtotal	100,800	140,614	94,218	335,632
Indirect costs to sponsoring institution	24,625	57,317	50,780	132,722
Total	125,425	197,931	144,998	468,354

NOTE: Figures for 1978-79 are projected; those for 1976-78 are amounts actually spent.

*Conference and slide show costs are included.

†Slide show costs are included.

‡Editing costs incurred for conferences are included for subcontracts in 1976-77.

NOTES

1. Statistical Abstract of the United States (Washington, D.C.: Government Printing Office, 1978), p. 464.

2. For a complete discussion of this issue, see Patricia A. Schmuck, Sex Differentiation in Public School Administration (Arlington, Va.: National Council of Administrative Women in Education, 1975); Patricia A. Schmuck, "The Spirit of Title IX: Men's Work and Women's Work in Oregon Public

Schools," *OSSC Bulletin* 20 (October 1976):1-30; and Patricia A. Schmuck, "Differentiation by Sex in Educational Professions," in Jean Stockard et al., *Sex Equity in Education* (New York: Academic Press, 1980), pp. 79-97.

3. David B. Tyack, *The One Best System: A History of American Urban Education* (Cambridge, Mass.: Harvard University Press, 1974), p. 62.

4. The figures for the representation of women in elementary principalships--from J. Pottler and A. Fishel, *Sex Bias in the Schools* (London: Associated University Presses, 1977), p. 290--should be interpreted with caution. After examining the original sources of these figures, W. W. Charters, Jr., in "The Decline of Female Elementary Principals: A Problem in the Data" (unpublished paper, Center for Educational Policy and Management, University of Oregon, 1979), concluded that the statistics in Figure 1 probably overestimate women's representation from the year 1928, and perhaps from 1948 and 1958, although the general trend of a decline in women's representation in elementary principalships is undoubtedly true.

5. A. Fishel and J. Pottker, "Performance of Women Principals: A Review of Behavioral and Attitudinal Studies," *Journal of the National Association of Women Deans and Counselors* 38 (Spring 1975):110-115.

6. Office of Education, HEW, *Women's Educational Equity Act, First Annual Report* (Washington, D.C.: Government Printing Office, 1976), p. 3.

7. In 1976-77 and 1977-78, the project actually spent about $1,500 less than projected. The amount spent in 1978-79, however, was slightly higher than budgeted.

CHAPTER 2

THE SETTING AND STYLE OF THE SEEL PROJECT

A social project designed to produce change is often influenced by its geographical setting, its work environment, and the individual characteristics of its members. This chapter describes the setting of the SEEL Project to provide a context for understanding its successes and failures.

The state in which the project tried to implement change, the research institution in which the project was housed, and the funding agency that sponsored the change are described first. Discussed next are the project staff, their background, skills, and work styles. Finally, important events in the first year of the project that affected later activities are explored.

THE SETTING OF THE PROJECT

The SEEL Project was granted funds to develop a model that would promote sex equity in public school administration in Oregon while being capable of replication in other states. To understand how the results obtained in Oregon can be developed in other states, it is important to discuss the characteristics of Oregon that may have influenced the progress of the project there. The project was housed within a research institute in a large state university in Oregon; the nature of this setting seems also to have influenced the project's activities. Finally, the nature of the funding agency and its contacts with the project may have affected the outcome of project activities. Each of these aspects of SEEL's setting are discussed next.

The State of Oregon

Characteristics of the state of Oregon that may have influenced the progress of the project include the nature of sex segregation in the education profession, Oregon's particular geographic features, and its social and political climate.

Sex Segregation among School Employees in Oregon

When compared with the national figures given in Chapter 1, the sex segregation among public school employees in Oregon is slightly more extreme (see Table 2-1). At the beginning of the SEEL Project, men were extremely overrepresented in the administrative positions of district superintendent, assistant superintendent, and school principal. Women predominated as elementary school teachers, but held proportionally fewer junior high school teaching and high school teaching positions than men.

Enrollments in graduate programs of education appear to show similar patterns. Although exact figures were not available, women appear to predominate in curriculum and instruction programs, especially with specialties in elementary education; men are more often found in administrative training programs.

TABLE 2-1

SEX SEGREGATION AMONG PUBLIC SCHOOL EMPLOYEES
IN OREGON, 1975-76

Position	Males (%)	Females (%)	Total Number
Superintendent	98.8	1.2	249
Assistant superintendent	98.7	1.3	79
Principal	93.3	6.7	954
Assistant principal	88.2	11.8	356
Head teacher	50.0	50.0	20
Director/supervisor	79.8	20.2	341
Coordinator/consultant	62.4	37.6	277
Teacher			
Elementary	26.8	73.2	12,943
Junior high school	58.0	42.0	3,061
High school	63.8	36.2	7,551
Multilevel or unknown	33.9	66.1	984
Librarian	17.0	83.0	718
Counselor	55.5	44.5	840
Administrative assistant	32.1	67.9	95
Other	45.0	55.0	402
Total	45.8	54.2	28,870

SOURCE: Oregon State Department of Education.

A major organization of school administrators in Oregon had, during the SEEL Project, a membership of approximately two thousand people and a full-time paid staff of ten. The organization's stated purpose is to unite school administrators, to help meet their needs, and specifically to help them become more effective administrators through various coordinated programs and activities. The organization is less than ten years old and each year holds a statewide convention at a coastal resort community. In 1979, the convention attracted approximately 45 percent of all school administrators in the state.

During the SEEL Project, a national organization of women administrators had a very small organization within the state. A paid executive director is based in Washington, D.C., and a few local chapters are found throughout the state. The purposes of this state group include advocating for women in administration, identifying qualified women educators to consult with various state agencies, providing growth opportunities for women administrators, working effectively with the state groups of administrators and school board members, and providing opportunities for women administrators to have contact with other women in the profession.

The Oregon State Department of Education had, by the fall of 1977, one person on the staff who had direct responsibility for sex-equity issues. Two other staff members--one responsible for career and vocational education and the other responsible for legal issues related mainly to racial discrimination--sometimes assisted with sex-equity matters as well.

The Geographical Setting

In 1978, Oregon's population was estimated to be 2,472,000. The largest center of population is the Portland metropolitan area, containing approximately 984,000 people. The Willamette Valley, which extends about 100 miles south of Portland, is the next most populous area of the state, containing about 701,400 people and including the medium-sized cities of Salem, Albany, Corvallis, and Eugene. The southern coast and eastern areas of the state are much less densely populated, accounting for only 32 percent of the total population but more than 86 percent of the total land area; only a few medium-sized cities dot these large areas.[1]

The various geographical settings are important considerations in understanding the representation of women administrators in Oregon at the time of the SEEL Project. In 1976 there were marked variations in the representation of women administrators from one region of the state to another. Women were the least likely to be employed as administrators in the most isolated eastern and southern coastal regions of the state. In fact, in 1973-74, six eastern Oregon counties had no women administrators.

A public opinion poll sponsored by the SEEL Project in its first year also showed variations in the public's attitudes toward women administrators from one region to another. Those in the Willamette Valley and in the Portland metropolitan area were the most likely to support women being administrators, while those in the southern and eastern parts of the state were the least likely to be supportive; those on the coast had a bimodal distribution, with few people having moderate attitudes.[2]

The Social-Political Climate of the State

Summarizing the social and political climate of a region is always difficult and perhaps especially so in a state with so much geographical variation.

The concentration of minorities is highest in the Portland metropolitan area, although the total number is small in contrast to other urban areas in the United States. There are a few Indian reservations, but the total Native American population is small and tends to be scattered around the state. In 1970 less than 3 percent of all the residents of the state were nonwhite.

People in Oregon are well-educated compared with the population of the country as a whole. In 1970, only 0.6 percent of all Oregonians could neither read nor write, compared with an illiteracy rate of 1.2 percent for the entire country. Only the states of Iowa and South Dakota had an illiteracy rate lower than Oregon's. In 1976 the median number of years of school completed in the state was 12.7, an average equal to that of the other Pacific Coast states, but much higher than that of the rest of the country. Only Utah and Colorado, each having a median educational attainment of 12.8 years, had higher figures.[3]

Fifty-four and one-half percent of Oregon's registered voters are Democrats, 34.5 percent are Republicans, and 11 percent belong to other parties or are independents; traditionally, however, Oregon voters have not shied away from voting a split ticket. Both of the state's U.S. Senators are Republican. From 1948 through 1978, the majority of the state voted for the Republican presidential candidate, except for 1964, when Lyndon Johnson defeated Barry Goldwater. In 1976 the governor was a Democrat, but in 1978 a Republican was elected. In contrast, all four of the U.S. Representatives are Democrats, and the state legislative bodies are heavily Democratic. In 1977, 24 of the 30 state senators and 37 of the 60 state representatives were Democrats.[4]

In many respects, state politics can be classified as moderate to liberal. Oregon is famous for its concern with environmental issues. The state ranks fourteenth in the nation in the size of payments for aid to families with dependent children (AFDC).[5] There is no large, organized antifeminist movement, and more than 20 percent of the state representatives are women, many of whom have advocated equal rights for men and women in the legislature. For instance, when attempts were made to revoke the state's ratification of the Equal Rights Amendment, feminist legislators managed to change the issue to a vote to reaffirm the state's commitment to the amendment. Each year since the mid-1970s, a statewide gathering of feminists has been held, with several thousand women in attendance.

The Project's Home Research Institute

The SEEL Project was jointly sponsored by the Center for Educational Policy and Management (CEPM) and the Center for the Sociological Study of Women (CSSW) at the University of Oregon, the major large liberal arts institution in the state. SEEL's association with CSSW involved largely a token endorsement. The project was housed at CEPM throughout its three years of existence.

CEPM is a university-affiliated, government-sponsored research and development center. The university's graduate program of educational administration is also associated with CEPM. The research associates at CEPM place high value on academic research, and because their status and promotion depend upon research and writing, they do little application of research or training of people in the field. SEEL was the only project at CEPM funded by the U.S. Department of Education. SEEL differed from most of its counterparts by being a social change effort rather than an academic or experimental investigation of a situation or problem. While the SEEL Project's primary purpose was to produce change, the proposal did include several research topics. The dominant value of academic research at CEPM may have influenced SEEL staff members to emphasize these writing and research activities more than might have happened had the project been located in an action-oriented organization, such as a General Assistance Center, a resource center sponsored by the U.S. Department of Education that supplies services to local and regional school organizations.

CEPM was predominately male. At the time the proposal was written, only two of the research associates in CEPM were women. During the year prior to SEEL's funding, CEPM had been cited in a sex-discrimination case filed by a female research associate. As a result, CEPM was under scrutiny from the university's affirmative action office throughout the course of the project. This may have raised awareness of the issue of sex discrimination in CEPM and hampered any active internal opposition to the project.

The Funding Agency

Although SEEL was funded by WEEA, there was little contact between WEEA officials and the project. SEEL's project director attended two or three project directors' meetings in Washington, D.C., each year and also met informally with other directors. The project was never visited by a WEEA official. The only external evaluative person to visit was a researcher from an institute that had contracted with WEEA to conduct five project case studies. This researcher received copies of staff minutes and publications, but made only four visits to the project over a period of two years. The visits were brief and usually involved reading materials in the project files; consulting extensively, mainly with the project director; attending some social gatherings; and having short meetings with other staff members.

The lack of pressure and presence by WEEA allowed project members to operate with a sense of independence. While there was no constraining authority imposed on them, apart from decisions about what activities would be funded, there was also no positive guidance. Thus, the influence of the funding agency acted in the initial selection and content of the project, but from that point on, its influence was minimal.

THE PROJECT STAFF

Throughout the three years of the SEEL Project, six Ph.D.-level research associates, five graduate research assistants, two project assistants, and one secretary were employed by the project. The size of the staff ranged from 10 to 13. Only the project director was ever employed full-time, and others were hired from .10 to .50 of full-time (FTE). The amount of time committed to the project varied for several people over the years the project was funded. The background of the staff members, their various skills, and the norms and modes of staff interaction are described below.

Staff Background

All but one of the six research associates had a doctoral degree in education; degrees were in educational administration, curriculum and instruction, educational psychology, and counseling psychology. The sixth person had a Ph.D. in sociology. At the beginning of the project, staff members ranged in age from late twenties to late forties. Their previous experience involved such areas as teaching in elementary schools, counseling at the university and with private firms, and teaching and research at the university level. Research interests included career paths in administration, sex inequities, the sociology of education, and group processes and organizational development. Only two of the research associates had regular faculty appointments at the University of Oregon, one in the College of Education and one in the College of Arts and Sciences.

Five graduate research assistants were employed by the project. Three were hired at the outset and two more joined the staff by March of the first year. Their appointments ranged over the years from .20 to a high of .50 FTE. All the graduate research assistants were in their late twenties when they were hired, and pursued a doctoral degree in some branch of education, including educational administration, educational psychology, and educational policy. Their previous experiences included teaching emotionally disturbed children, coordinating alternative programs for school districts, teaching in an alternative school, and teaching communications and law in community colleges.

Two project assistants and a secretary completed the staff. The project assistants were hired in an experimental effort by the project to use job sharing and to utilize underemployed people (see the discussion in Chapters 3 and 4). Initially, the staff planned not to hire a secretary, but to do many clerical tasks themselves and to send out large manuscripts on a work-for-hire basis. However, they abandoned this strategy by January of the first year and hired a secretary already employed within CEPM. The project assistants and the secretary each worked at .50 FTE. Their ages ranged from 25 to 48, and two of the three had bachelor's degrees in the liberal arts. One of the project assistants left the project at the end of the first year, and the other continued throughout the rest of the project in a permanent, half-time position. The secretary stayed with the project throughout.

Over the three years of the project, the SEEL staff included 3 men in the total of 14 staff members; because of shifts in personnel, no more than two men were employed at any one time. One member of a minority group was on the staff for the first year. No regular faculty member from the

College of Education was on the staff after the first year of the project; although the staff discussed the possibility of recruiting another regular member of the education faculty, that was not done.

Staff Interaction Patterns

Patterns of staff interaction can affect the way activities are conducted and their eventual success or failure. Below are discussed the norms of the SEEL Project as they evolved over the years and the various differences among the staff that may have affected the results eventually attained.[6]

Norms

At the first meeting of the entire staff, held shortly after most of its members were hired, people discussed working norms they hoped the group would have. The concerns varied, from expressing the hope that boring and low-level work would be shared among the staff members, that all work tasks would be shared whenever possible, and that workers could feel free to refuse to do a task, to being aware of group process, of how individuals were affected by what was happening in the group, and of how decisions were made.

Over the years some clear behavior patterns evolved. The group tended to be friendly and lighthearted, with a good deal of joking among staff, as well as concern with the well-being of each staff member. Many of the staff members developed close ties and shared personal information.

There was also a fair amount of work sharing, although as time wore on, the inefficiencies of this pattern became apparent and certain staff members became more clearly responsible for some tasks. For instance, one of the project assistants was mainly responsible for the project newsletter throughout the three years of the project. A graduate student who had experience working with publications provided considerable assistance, and other staff members contributed articles and ideas. One research associate was hired, in the second year of the project, specifically to guide the Oregon Network; that was his sole area of responsibility. The research associate who had a social science background and research interests was the most involved with the research projects in the first year, and later with the evaluation procedures. Two graduate students were hired to work with the documentation and evaluation activities, and one of them served as the project's ethnographer. The project director, in her leadership role, remained the most involved with a wide variety of activities.

At the first staff meeting both those who had developed the project proposal and the other staff members voiced the hope that the leadership and decision making within the project would be shared. Yet perhaps inevitably, the project's ethnographer noted clear patterns of leadership and decision making in the group. One of the co-authors of the proposal was employed full-time on the project and clearly emerged as the project director and the one to whom people turned for decisions. She was strongly committed to equal opportunities for women in employment, was action-oriented in her leadership, and tended to be active and outspoken. Based on interviews with the staff and observations of the group's activities, the ethnographer noted that several staff members felt at ease with this forceful, interactive style and political orientation. While those staff members tended to be centrally involved with decisions, others voiced a concern with their lack of input into project decisions. Over time, the ethnographer noted--perhaps because of their feelings of isolation and powerlessness--that these people tended to become less involved in the project's activities.

Differences among the Staff

With the staff ranging in size from 10 to 13 members, it is only natural that different theoretical outlooks became apparent. One way to conceptualize these differences is through James Coleman's distinction between "theories which start with changes in the social conditions in which individuals find themselves versus those which start with changes in individuals."[7] Coleman suggests that this distinction "pervades nearly all action programs designed to produce change."[8]

Even though the issue of feminism was rarely discussed openly and was considered by several staff members to be tangential to project activities, the ethnographer noted differences among the staff members that involved feminism. Although by the end of the project all of the staff members felt comfortable calling themselves feminists, at the beginning they did not. Early in the project all the staff members agreed on the importance of ending sex discrimination in educational administration, but they differed in their reasons for doing so. Some adhered to what Coleman would call individualistic theories, believing that discrimination generally resulted from the attitudes of both women and men. In interviews and in staff meetings, these persons expressed a concern with being labeled radical feminists and discounted by their male peers, perhaps because they often had occupational aspirations within the predominantly male professional world. In their belief that discrimination represented a breach of equal opportunity and access to education, these staff members could be seen as representing the branch of the women's movement characterized by such groups as the National Organization for Women.[9] A few staff members were more outspokenly feminist and tended to see the problem of sex inequities in educational leadership as part of an overall system of sex inequality; they could be seen as being closer to the branch of the women's movement characterized by Freeman as radical feminists.[10] Even though a more radical perspective became more common among the staff during the course of the project, the more individualistic ideology continued to influence the decisions that were made.

Other differences among the staff members involved work styles: some tended to be action-oriented and wanted to do things quickly; others tended to want to analyze and critique past actions before proceeding. Thus, some staff members tended to emphasize academic work, careful thought and analysis; others were often impatient with this and urged quicker actions and analysis.

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These theoretical and work-style differences influenced the outcome of several project activities, but the SEEL staff generally worked cooperatively together. Tension and differences tended to be minimized, and staff members shared the common goal of reducing sex inequities in educational administration.

SHIFTS IN THE PROJECT'S FOCUS

Over the years of the project, some activities received more attention than others, some were eventually dropped, and some were added. As will be further explained in the chapters to come, the reasons for these shifts can be traced at least partly to the specific skills and characteristics of the staff, as well as to their experiences during the first year.

The activities on which the staff focused the most during the first year were those which required the skills many of them had and were good at using: teaching, organizing conferences, and making presentations. The staff ethnographer noted that the skills required by these activities were often within the sphere of the staff's past work experiences and that the activities involved interaction with people or organizations already familiar to staff members. Usually, those activities which staff did not complete required dealing with less familiar organizations and people. Thus, one reason, although officially unrecognized by the staff, for letting some activities remain unattended to was that such endeavors required new and different skills and contacts.

While many of the staff, especially in the first year, did not want to be seen as radical feminists, they often found their experiences with male-dominated groups to be distasteful and unpleasant. Interchanges with the state organization of school administrators were not always satisfying. A particularly discouraging incident occurred at the 1977 national meeting of the organization of school administrators: although SEEL staff had been invited to give a presentation and worked many hours preparing a slide-tape show, virtually no one attended their presentation. In addition, SEEL staff members were disheartened by the national meetings of the organization of women administrators, feeling that many of the participants in this group lacked the concern and commitment SEEL believed were really needed to alter sex inequities in administration.

These experiences led to a decision to focus, in the second year of the project, on implementing the job network that had been proposed originally and on forming an active organization of women interested in school administration in Oregon (which became the Oregon Women in Educational Administration, or OWEA). It was explicitly decided at this point to reduce the number of direct attempts to convince the gatekeepers of the profession to admit women and to concentrate instead on forming a strong group of interested women throughout the state and a network of information regarding jobs and applicants.

The organization and the network became a reality during the second year of the project. Although originally the project had been planned to last for only two years, a third-year proposal was funded, calling for maintaining the network in a reduced form and providing support to complete projects begun in the earlier years. In contrast to the sharp emphasis on activities during the first and second years, the third year was largely devoted to writing.

The setting of the SEEL Project, including its home state and research institute; the nature of the staff; and the changes made over the years of the project undoubtedly influenced the outcome of the activities that were originally proposed. In the chapters to come, the impact of the project's academic environment, of the location of SEEL in the more populated and liberal section of the state, and of the ideology of SEEL staff members on the course and results of project activities will be apparent. However, as will be seen in Chapter 6, other variables, including trends apparent in other states, also had a large impact on any changes that occurred in the hiring and training of women administrators.

NOTES

1. Oregon Blue Book (Salem: Oregon State Printing Office, 1979).

2. Jean Stockard, Patricia A. Schmuck, and Janet Hart, "Public Prejudice against Women Administrators: Fact or Fiction?" unpublished paper, Center for Educational Policy and Management, University of Oregon, 1977.

3. Statistical Abstract of the United States (Washington, D.C.: Government Printing Office, 1978), pp. 145-146.

4. Oregon Blue Book.

5. Statistical Abstract of the United States, p. 359.

6. For a full discussion of this subject, see Rita Pougiales, "A Case Study of a Social Change Project: Sex Equity in Educational Leadership," Ph.D. dissertation, University of Oregon, 1981.

7. James Coleman, "Conflicting Theories of Social Change," American Behavioral Scientist 14 (1971), p. 634.

8. Coleman, "Conflicting Theories of Social Change." For a more complete discussion of how this distinction can be applied to the SEEL Project, see Kenneth M. Kempner, "A Conceptual Framework for the Evaluation of Planned Social Change," Ph.D. dissertation, University of Oregon, 1979.

9. Jo Freeman, The Politics of Women's Liberation (New York: David McKay, 1975); see also Pougiales, "A Case Study of a Social Change Project."

10. Freeman, The Politics of Women's Liberation.

CHAPTER 3

INDIVIDUAL CHANGE

Many members of the SEEL Project believed that change on the part of the individual was necessary to move toward sex equity in educational leadership. They believed that both greater individual awareness of sex inequities and more positive attitudes regarding the roles and capabilities of women educators were needed. The first part of this chapter discusses project activities designed to increase awareness of sex inequities in educational management. These attempts include presentations to practicing educators and the general public; presentations in college training programs, both on campus and in the field; and dissemination of written materials and other project products. The second part of the chapter describes specific attempts to alter views about the role of women in education and the possibility of women being school managers. These activities include efforts to recruit women into graduate programs and to encourage their postgraduate careers, as well as efforts to convince the gatekeepers of the profession, including practicing administrators and school board members, of the importance of including women as school administrators.

Distinctions between mode of intervention and type of change are never perfectly clear-cut. Obviously, some of the attempts to increase general awareness may also influence gatekeepers to hire women, and may also influence women to consider administration as a career possibility. Similarly, some of the activities designed to change individuals may also include attempts to alter organizations. This chapter, however, focuses only on direct attempts to change individuals, describing these efforts and, where possible, their effectiveness, and then exploring why they succeeded or why they failed.

BUILDING AWARENESS OF THE PROBLEM

A situation is not considered to be a problem until people define it as such. Thus, one of the goals of the SEEL Project was to increase the awareness of educators and the general public that there was an extensive sex imbalance in school administration and that this situation was problematic because the full resources available in the education profession were not being tapped. The major ways the SEEL Project attempted to develop awareness were (a) making presentations to practicing educators and the general public, (b) consulting with an intact work group, (c) making presentations in university classes and training programs, and (d) disseminating materials that dealt with the problem (see Chapter 1).

Presentations to Practicing Educators and the General Public

Table 3-1 lists presentations given by SEEL staff members to increase the general public's and educators' awareness of sex inequities in education. Table 3-2 lists mass media coverage that described the project. In the first year of the project, 21 presentations were made to groups; in the second year, 16 presentations were made; and in the third year, 26 presentations were made. Nine instances of media coverage occurred in the first year, six occurred in the second year, but only one was documented in the third year.

TABLE 3-1

PUBLIC PRESENTATIONS BY SEEL STAFF MEMBERS BY YEAR AND BY SCOPE OF AUDIENCE, SEPTEMBER 1976 - AUGUST 1979

	YEAR OF PROJECT			
Scope of Audience	1976-77	1977-78	1978-79	Total
University*	4	2	3	9
Local community	4	4	6	14
State of Oregon	6	8	6	20
National	7	2	11	20
Total	21	16	26	63

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*Excludes guest lectures in classes.

TABLE 3-2

MEDIA COVERAGE OF SEEL PROJECT BY YEAR AND BY SCOPE OF AUDIENCE, SEPTEMBER 1976 - AUGUST 1979

	YEAR OF PROJECT			
Scope of Audience	1976-77	1977-78	1978-79	Total
University	2	4	0	6
Local community	6	1	0	7
State of Oregon	1	1	1	3
Total	9	6	1	16

The national audiences for the presentations ranged from the national organizations of school administrators and women administrators to conferences of educators in other states, including Illinois in 1977, Washington in 1978, and Alaska in 1979. Statewide audiences included the state organization of school board members, the Oregon State Department of Education, a statewide women's conference, and a statewide meeting of the American Association of University Women. Local groups contacted during the project's first year included only those in the local area, but spread to other areas of the state, including the Portland metropolitan area, the coast, and the eastern part of the state during the second and third years. Most public presentations at universities were given at the school where the project was based, i.e., at the University of Oregon, although some were given at universities in Seattle and California.

The content of the presentations varied. Sometimes a prepared speech was given; at other times, the staff member was part of a panel. Sometimes the slide-tape show was shown; at other times, some awareness exercises were used. Once in a while, a combination of approaches was used. Usually, the project director was asked to give speeches, and various other staff members also gave short presentations and demonstrated the slide-tape show. The size and composition of the audience also varied, ranging from a maximum of 100 to a minimum of 10 people. One major exception was the slide-show presentation at the national meeting of school administrators in 1977, when, as noted in Chapter 2, the presentation was essentially ignored. That experience led to the change in strategy noted earlier, i.e., a decision to concentrate more on the aspirations and problems of women and to include men as part of the team that gave presentations to mixed-sex or all-male groups. After implementing the change in strategy, many SEEL staff members came to believe that having men give part of the presentation was a more effective way of reaching unsympathetic audiences.

Fifteen instances of media coverage were noted in the first two years of the project. Nine involved newspaper articles, all but two in the immediate local area. Four television interviews and two radio interviews were also conducted during this time, all in the western part of the state. Another television interview was conducted near the end of the third year of the project.

The project spent $14,750 in travel costs during the three years, and about half of this amount involved attending the meetings discussed above. Over the years, the targets of the presentations gradually changed, from audiences primarily of men (the state and national meetings of school administrators in the first year of the project) to audiences of women (the state and national meetings of women administrators in the second and third years). This shift in audiences may have resulted from the staff's discouragement in their early presentations, their feeling that they were being ignored (a feeling supported in fact by the extremely small audience at the national meetings of school administrators), and their subsequent decision to focus on women. Another change involved a tendency on the part of the project director toward participation on advisory boards of various organizations. While such participation was not in the strict sense a presentation made by the project, it may have indicated that the issue of sex equity was being considered more seriously, as advocates were being included as established members of the group.

Presentations to local school districts were relatively rare. In part, this may have occurred because of a lack of time. In part, this may also have occurred because the project staff lacked contacts with outlying school districts and believed that local school districts might not have been overly receptive to representatives from the university. A locally based project or one housed in an organization such as a state department of education might have more access to making presentations at the local level. Other groups could also make a special effort to contact local districts.

Consultation with an Intact Work Group

In addition to the plans for making presentations at conferences and meetings of educators throughout the state, the original SEEL proposal also included plans for providing on-site consultation to a mixed-sex work group. Several of the staff members had extensive training and experience in consulting with working groups. They believed that if some of the difficulties males and females faced in working together could be identified, training materials could be developed to counteract some of the problems.

In contrast to SEEL's experience in making presentations at conferences, the project's attempts to offer this consultation were not met with enthusiasm. After holding extensive discussions with women in administrative positions in the local geographic area, SEEL staff decided, in the second year, to drop the plans for consultation. The working women believed that any on-site consultation might simply highlight their isolation and the fact that they were different because of their sex. Taking their cues from these women in the field, the SEEL staff did not press the plans further.

Ironically enough, even though these plans were formally discarded, a similar kind of content was presented during the third year of the project. The newly formed Oregon Women in Educational Administration (OWEA) wanted to cosponsor a workshop with the state association of school administrators to demonstrate their cooperation publicly. They chose "Male-Female Working Relationships" as their topic, and the SEEL project director was a coleader of the workshop. About 60 people from all over the state attended the session, and requests for similar workshops occurred. The experience may indicate that the need for assistance with work relationships might have been present in the first year of the project. Perhaps the consultation format was more threatening than that of a workshop, which is more anonymous. Or perhaps by asking only people personally known to the project staff, SEEL underestimated the need for the activity. Again, a project having a statewide focus might be able to implement this activity more easily. Costs for these kinds of workshops are essentially minimal, involving only advertising, housing the workshop, and fees (if any) to consultants. Workshop participants could be charged fees to offset these costs.

Presentations in University Classes and Training Programs

Three types of participation in educational programs were originally planned by the SEEL staff: (a) participating in the extension training program in educational administration, (b) making short presentations in classes required for administrative certification in the two state schools granting certification, and (c) teaching a one-term course dealing solely with sex discrimination in education.

Extension Training Programs

Although the original proposal included plans for participation in both the Oregon State Department of Education's Intern Training Program for administrators and the University of Oregon's Extern Program for ongoing training of practicing administrators, only the latter was actively pursued. The state Intern Training Program was not active during the first year of the SEEL Project, and so that activity was dropped.

Although attempts were made to present material to students enrolled in the extension program, these efforts, too, were unsuccessful. The students in the program were allowed to choose the material to be discussed throughout the year. Although the director of the extension program was a member of SEEL's advisory board, the students (all but two of whom were male) did not select material on sex equity. On two different occasions in the project's first year, the students ranked the issue of sex equity lowest on their priority list of topics. In the second year, the SEEL staff made no effort to work with the program. In the third year of the project, a new director was hired for the extension program. The SEEL staff still did not make presentations to the group, but the names of all program participants were added to the mailing list for SEEL's quarterly newsletter.

Guest Presentations at University Classes

In the original proposal, the SEEL staff planned to make regular presentations regarding sex inequities in education to university classes required for administrative certification. These presentations were planned for both the University of Oregon and Portland State University, the two state schools that offer training toward the administrative certificate. Although as many as ten presentations were given to classes in the University of Oregon's College of Education each year, there was no systematic inclusion of material in required courses. Instead, willing professors invited staff members into their courses and only the students who happened to be enrolled in those sections were exposed to the material. Most of the presentations were made at the University of Oregon. Only in the summer of the second year and in the third year of the project were guest presentations given in courses at Portland State University. Thus, only students at the University of Oregon had much chance for exposure.

A One-Term University Class

The most successful attempt to include material on sex inequities in education in the College of Education curriculum was the one-term course taught by the SEEL staff in five different terms. In contrast to the other efforts, this course did not require the cooperation of regular faculty members in the College of Education, and it was financed solely by the SEEL budget. It required only the use of a university classroom.

The course included a discussion of sex inequities faced by students and professionals, explanations for these inequities, legal regulations concerning sex discrimination in education, and the possibility of change. Students in the course were primarily graduate students. Women always predominated. Usually, there were practicing educators, such as principals and teachers, and university students in education, as well as, at times, undergraduates from other areas of the university. Credit was given through the Department of Educational Administration for three quarter-hours. Students could also count the credit toward the certificate in women's studies granted by the university and receive extension or continuing education credit.

At first, readings for the course consisted of a series of articles chosen to illustrate each of the topic areas. Dissatisfied with this collection of articles and with available textbooks, the staff decided to write a book[1] that could be used in similar courses. In later terms, the drafts of that book were also read by the students. The course continually received high evaluations when it was compared with other courses offered in educational administration.

In contrast to many of the other attempts SEEL made to raise awareness when an audience was available for only a short time, teaching this course made it possible to measure changes in the attitudes of the students during the term. After the staff obtained informed consent, the students in the class completed a short questionnaire asking for demographic information. The questionnaire also included a Likert-type scale of eight items designed to measure general attitudes toward feminism[2] and another scale of ten items designed to measure attitudes toward men's and women's roles in the education profession. The questionnaire was administered to each student during the first class session and again during the last class session.

Tables 3-3 and 3-4 summarize the attitudes of the students at both the first class session and the last, as well as the changes that occurred over the term for students in the first two terms the course was taught. First, it is obvious that those who enrolled in the course tended to have strongly feminist attitudes from the start. While the average change in general attitudes during the term was toward a more feminist perspective, this change was small and did not approach statistical significance, probably because there was so little room for movement on the scale. Similarly, the students initially held very flexible attitudes toward the participation of women and men in different areas in the education profession. While their attitudes were even more flexible by the end of the term, again the changes were not significantly different from zero. Thus, while the class did help produce somewhat more egalitarian attitudes, the audience was already so

TABLE 3-3

CHANGES IN ATTITUDES TOWARD THE ROLE OF WOMEN BY STUDENTS IN THE SEEL COURSE IN TWO SELECTED TERMS

I. Feminism Scale*

1. A woman has little to gain through participation in the present Women's Liberation Movement.
2. A woman should not sacrifice her work or her career to meet the needs of her family any more than her husband does.
3. By their very nature, men are more suited for positions of leadership and authority than women.
4. It would be wrong for a woman to work if her husband didn't want her to.
5. Motherhood and the family provide a woman with all she needs for a happy and productive life.
6. It's not right for a woman to go into a field of work where she may take away a job from a man who has to support a family.
7. I would be willing to vote for a woman for President of the United States.

II. Results†

Pre-test Results:

$\overline{X} = 31.67$ $s = 2.62$ range: 26-35

Post-test Results:

$\overline{X} = 32.07$ $s = 4.97$ range: 26-35

Average Change over Term:

$\overline{X} = +.06$ $s = 2.55$ range: -5 to +5

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*All responses ranged from "Strongly Agree" to "Strongly Disagree" on a five-point scale. Scores on items 2 and 7 were reversed. A high total score indicates greater agreement with a feminist position.

†$n = 15$ $t = 0.88$, n.s.

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TABLE 3-4

CHANGES IN ATTITUDES TOWARD THE ROLE OF WOMEN IN THE EDUCATION PROFESSION BY STUDENTS IN SEEL COURSE, TWO SELECTED TERMS

I. Attitudes Scale*

How suitable do you think it is for:

1. A male to be a superintendent of a school district?
2. A female to teach in a high school?
3. A male to be a principal of a high school?
4. A male to teach in an elementary school?
5. A female to be a principal of a high school?
6. A female to be a principal of an elementary school?
7. A female to teach in an elementary school?
8. A male to teach in a high school?
9. A female to be a superintendent in a school district?
10. A male to be a principal of an elementary school?

II. Results†

Pre-test Results:

$\overline{X}$ = 34.2   s = 5.24   range: 24-40

Post-test Results:

$\overline{X}$ = 35.2   s = 4.66   range: 34-40

Changes Over Term:

$\overline{X}$ = 1.27   s = 4.68   range: -10 to +10

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*Answers could range from "Very Suitable" to "Very Unsuitable" on a four-point scale. Scores were summated.

†n = 15   t = 1.02, n.s.

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self-selected in a feminist direction that the overall effect was relatively slight. There was no discernible pattern of change in the students' occupational aspirations over the term.

Although the cost of making guest presentations to classes was fairly low, the cost in staff time of conducting the term course was fairly high. This resulted partly from the fact that the course was either team- or co-taught, so that the time of several staff members was devoted to preparing for and attending class sessions, as well as to reading student assignments. Given the relatively small size of the classes and the feminist nature of the students, it is indeed questionable if this particular form of building awareness was cost-effective. Moreover, the team teaching of a small group can entail many staff hours.

Dissemination of Written and Other Materials

Many pieces of material were written, developed, and disseminated by the SEEL staff during the three years of the project. Some of these materials were reviews of previous work and summaries of the existing situation. Others were reports of original research sponsored by the project. One product was a slide-tape show that illustrated the sex inequities in educational administration. Another was a widely distributed quarterly newsletter that provided encouragement for aspiring women administrators.

Reports of previous research

Only one of the reports of previous research was planned in the original proposal. This was a short monograph describing the sex-based segregation of the educational labor force in Oregon.[3] The monograph was published in October 1976 by the Oregon School Study Council and was distributed to the approximately 300 Oregon school administrators on that group's mailing list. More than 400 copies of the monograph have since been distributed on request by the SEEL Project. The monograph was included as a reading in the term course and given to participants at the first SEEL conference. A follow-up report[4] was written in November 1979 for the Oregon School Study Council and was also distributed to the Oregon school administrators on the Council's mailing list.

Two other reviews of previous research grew out of related activities. Within the goal of restructuring training programs, the SEEL staff had proposed to present material on sex inequities in courses required of students in educational administration. Although, as noted earlier, the attempts to present material in these courses did not meet with overwhelming success, the outgrowth of those attempts was the development of four short informational packets of materials intended for practicing school administrators and administrators in training or retraining. The packets were titled "Affirmative Action," "Sexism in the Classroom," "The Vanishing Woman in Educational Administration," and "The Language of Inequality: Sexism." The material was written for audiences that are relatively uninformed about, or uncommitted to, the goal of sex equity in education.

The third review of previous work grew out of the term course. This was a full-length book[5] discussing sex inequities in education, based on material covered in the course, but integrating the material in a manner that the SEEL staff could not find elsewhere in the literature. The book summarizes a voluminous body of literature documenting sex differences and inequities for students and professionals, analyzes these inequities, reviews the current legal bases for change, examines the possibility of change in the future, and includes information and exercises for experiential learning in the field. The book was published by Academic Press in 1980.

A fourth and final review of previous research involved the practice of job sharing--the splitting of one full-time job into two part-time positions. The original proposal had called for studying this form of alternative structuring of work and examining its feasibility as a way to get more women into administrative positions. Three staff members wrote an article advocating the use of job sharing[6] and two staff members completed an annotated bibliography of the job-sharing literature.[7] Approximately 100 copies of the article and 150 copies of the bibliography were distributed.

Most of the people requesting these materials were women. Many were university researchers and teachers, graduate students, and writers of grants, articles, or dissertations. Fewer requests came from practicing administrators.

Research Conducted by SEEL

The original proposal called for the completion of three research projects to fill gaps in the literature regarding women administrators: (a) a survey of public attitudes in Oregon toward women school administrators, (b) a documentation of the process of selecting a school administrator, and (c) an analysis of the career patterns of high-level women school administrators. Each of these research activities was subcontracted. The poll was conducted by a well-known, statewide polling firm, the documentation of the selection process was conducted by a person from the local community, and the study of women's career paths was completed as a doctoral dissertation. Each of these research reports was summarized in an issue of the SEEL Report, the project's quarterly newsletter.[8] In addition, the results of the poll were summarized in an issue of the Phi Delta Kappan and referenced in Education Recaps.[9] An article summarizing the dissertation on women's career patterns was also distributed by the project and became a chapter in a CEPM publication titled Sex Discrimination in Educational Policy and Management.[10] More than 800 copies of the articles that describe these research projects were disseminated over the three years.

In addition to these sponsored research projects, one of the graduate research assistants summarized her study of the graduate school experiences of males and females in educational administration in one issue of the SEEL Report and in a paper presented at the 1979 American Educational Research Association (AERA) meetings.[11] Two other graduate students presented summaries and analyses of the evaluation of the SEEL Project at the 1978 and 1979 AERA meetings.[12]

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Slide-Tape Show

The SEEL staff prepared a 20-minute, narrated slide show illustrating sex inequities in administration for a presentation to the national group of school administrators in 1977. During the second year of the project, an accompanying cassette tape was produced, and the complete package was ready for dissemination. The slide-tape show was presented at least 17 times by the SEEL staff--at meetings such as those of the statewide school administrators' group and a national group of professors of educational administration; for counselors at a local community college; and at University of Oregon classes. In addition, agencies and projects throughout the country purchased copies of the show.[13]

The SEEL Report

By far the most widely disseminated written product of the SEEL Project was the quarterly newsletter, entitled the SEEL Report. Each issue was a four- to six-page typeset report, and cost approximately $370 per issue to print. Mailing costs varied from $25 to $50 per issue, depending on the number of copies sent and the costs for bulk mailings; they averaged about $40 each. Articles were usually written by SEEL staff members. Production of each issue required about three or four months to plan the content, write the articles, lay out the material, and complete the printing process. The expertise of one SEEL staff member, who had extensive production experience, and of an on-campus editor provided invaluable help to the staff in learning how to complete the process efficiently.

Each issue included a lead article, such as "The Vanishing Woman in Educational Administration" or "Public Attitudes toward Female Administrators," as well as information about pertinent legislation and conferences, letters to the editor, and resources. Because the production and print process took three months to complete, the SEEL Report was used to discuss issues that would not become quickly outdated.

The newsletter was initially sent to about 1,000 practicing educators in the state, including superintendents, personnel directors, school board chairs, and members of women's groups of educators. At least one person in each of Oregon's 369 school districts received a copy. A postcard for noting additional names for the mailing list was included in the mailing and yielded 80 replies. More names were added from participants at various conferences, classes at the University of Oregon, and other contacts with interested people. About 300 copies were also sent to people in 42 other states and Washington, D.C. The final mailing list contained almost 2,000 names.

Two surveys of the recipients of the newsletter were conducted: a mail survey in 1977 and a telephone survey in 1978. The samples for both surveys were randomly selected and represented all regions of the state. Although some respondents reported having little time to read the report, responses to the newsletter's organization and content were generally favorable in both surveys.

The analysis of the survey results in the second year distinguished those respondents who were members of the fledgling OWEA organization from those who were not. The OWEA members more frequently reported reading the newsletter thoroughly and finding the articles personally relevant. They were also somewhat more likely to share the report with others. This may suggest that such a newsletter is more relevant for women who are in or are aspiring to positions in educational administration. All of the respondents in both groups wanted to see the report continue operation after SEEL's funding ended.

The Effectiveness of SEEL's Materials

The research reports, some of the surveys of previous research, and the newsletter were planned in the original proposal. Some of the written materials and the slide-tape show prepared by the SEEL staff grew out of other activities. Some staff members believed that the production of such materials was the most effective way to produce attitude change. They suggested that this "two-stage flow of information" strategy involved a conscious decision not to confront gatekeepers and other involved people directly, but instead to provide information and materials that would support and encourage those who have daily and direct access to the target audiences.

It is also conceivable that staff attention was devoted to additional written materials at least partly because the project was housed in a university-based research center, staffed by people who conducted and valued academic research. Several of the staff members were involved in or desired academic careers and tended to focus more on projects that would enhance their professional advancement. In addition, the preparation of materials may have been an easier and less taxing way of building awareness than direct confrontation with often hostile audiences would have been.[14] Yet as a result of the decision to develop more written materials, rather than to confront target groups directly, perhaps only those who cared to read or see the materials have been exposed to them. The goal of building general awareness may have been circumvented and inadvertently changed to giving support to those already holding sympathetic views. The finding that the SEEL Report was more appreciated and more used by those already sensitive to the issue tends to support this analysis.

While the cost of materials for the written reports was not overly high, the cost in staff time and energy was often considerable. During the second year of the project, several staff members spent much of their energy and time on writing, and by the third year, almost all of the staff time was devoted to writing. In addition, the professional skills of some staff members were underutilized, perhaps partly because of the early decision to try to share low-level work. For instance, research associates and graduate students often spent many hours doing clerical tasks that could have been performed much more cheaply by a work-study student; that is the means by which other projects have circumvented such problems.

Of all the written materials, the SEEL Report was probably the most cost-efficient. At an average cost of about $850 per issue (including the costs of production, mailing, and staff time), each issue was sent to more than

1,000 readers. Another project would not need or want to replicate many of the various literature reviews, the research projects, or the slide-tape show. However, another project might wish to produce its own newsletter as a cost-effective means of contacting a wide range of people, especially if the format were more modest than that used for the SEEL Report. Given that its audience was already generally aware of the issue, another project might publish a newsletter that had a simpler format and was less costly to produce.

CHANGING ATTITUDES REGARDING THE ROLE OF WOMEN IN EDUCATION

While the SEEL activities discussed above focused mainly on raising general awareness of the issue of sex inequities in education, other activities were specifically designed to (a) encourage women educators to consider administrative careers and/or (b) encourage gatekeepers, high-level administrators, and school board members to consider seriously women applicants for administrative jobs. Both of these efforts are described below.

Recruiting Women to Educational Administration

Two activities within the goal of the training and recruiting of women for administrative careers involved encouraging women to enter administration. One was the specific activity designed to recruit women to the Portland State University and University of Oregon administrative training programs. The other was the statewide conference sponsored by SEEL in the first year, jointly by SEEL and OWEA in the second year, and mainly by OWEA with some help from SEEL in the third year of the project.

Recruitment of Women Students

The original project proposal called for the development of a specific plan to recruit women to the University of Oregon and Portland State University programs in educational administration, in conjunction with the department chairperson, by January 1977. The University of Oregon and Portland State University are the only schools in the state that offer administrative training. At the beginning of the project, the University of Oregon was the only institution that granted the doctoral degree in educational administration. Although the success of that program was to be documented by SEEL, the plans to do so were not implemented. Instead, one of the SEEL graduate assistants edited the student handbook at the University of Oregon to ensure that women were officially encouraged to enter the program. In addition, members of the SEEL staff and especially the project director had numerous contacts with potential students.

Nineteen of the 26 women who were enrolled in the University of Oregon's doctoral program in educational administration in 1978 had had some personal contact with the project director or other SEEL staff members. Some individuals commented specifically about the impact of the project on their decisions. One woman wrote, "It is time for me to move upward and onward or to stagnate where I am. . . . Reading about your project in the paper has, at long last, caused me to act." Although a study by one of the staff members found that women with Ph.D.'s in administration rarely entered public school posts,[15] SEEL made no attempts to recruit women to the administrative certification programs. Moreover, there were no recruitment attempts aimed at groups of teachers, who were potentially the largest source of women school administrators.

The project's failure to devote more time to the recruitment of individual women probably stems at least partly from the nature of the SEEL staff. Many of the staff members either had been or were enrolled in doctoral programs in education and thus may have tended to concentrate on attracting women who had interests similar to their own. Also, although the staff ethnographer noted that several staff members suggested that teachers and organizations of teachers in the state be contacted, these suggestions were generally not followed.

The SEEL Conference

A statewide conference was sponsored, entirely or in part, by SEEL during each of the three years of the project. The first conference was held in April 1977, in Eugene, and was organized solely by the SEEL staff. The second and third conferences, held in June 1978 and June 1979, were jointly sponsored by SEEL and OWEA; each was held in a coastal resort community and immediately preceded the annual meeting of the state administrators' group. Because OWEA became more actively involved in the later conferences, the staff time SEEL devoted to the meetings declined considerably over the three years.

About 150 people attended the first conference, 180 attended the second, and 200 registered for the third. Probably because the last two conferences were held in conjunction with the statewide meetings of all school administrators, they were heavily attended by women who were current or aspiring administrators.

Women predominated at all the conferences. About 20 percent of the participants at the first conference were men. A few of the participants were practicing public school administrators. Anecdotal evidence again indicates that the conferences influenced the career plans of some women. At least four women gave unsolicited comments indicating that the first conference marked a turning point in their careers. For some, this probably meant returning to school to gain administrative credentials. For others, it apparently meant soliciting help with career plans in their home districts. A recently hired school principal called the SEEL office in 1978 to report that she had attended a session at the 1977 conference at which the importance of mentors was discussed. The woman had returned to her own school district, talked with her principal and superintendent, and asked them to help her with her career goals. They did, and she became a principal of a small high school in the fall of 1978.

Approximately $5,000 was spent on the first SEEL conference. In addition, more than half of the staff members devoted several months to planning the conference. The first year's conference was probably important in publicizing SEEL's existence, yet many staff members felt that the conference was neither cost-efficient nor time-efficient. As a result, SEEL reduced its efforts by jointly sponsoring later conferences with the fledgling OWEA. In 1978, SEEL's expenditures for the conference amounted to about $1,800, and much less staff time was committed to the effort.

Changing the Attitudes of Gatekeepers

If women are to attain administrative positions, school officials in charge of hiring must be supportive. A good deal of research evidence indicates that administrators and school board members do not usually encourage women to enter administration.[16] Thus, an important aspect of achieving sex equity may be changing the attitudes of those who control hiring decisions: current administrators and school board members. Two SEEL activities dealt directly with this question: (a) the planned meetings with those college placement personnel and high school counselors who encourage or discourage people in career plans, and with those school district personnel officers who may hire administrators; and (b) an activity added in the second year of the proposal that called for efforts to convince the state organizations of administrators and school board members to place a high priority on efforts to reduce sex inequities in public school administration. In addition to these activities, the simple presence of the hiring directory as part of the Oregon Network may also have helped change the attitudes of hiring officials. Below is a brief discussion of the possible effect of the Oregon Network in this area; a fuller discussion of the Oregon Network is presented in Chapter 5.

Guidance and Personnel Officers

During the first year, one member of the SEEL staff assumed responsibility for SEEL's contributions to the conferences of guidance counselors. Despite these plans, the SEEL staff met with only one group of guidance counselors--those at the local community college--and with the placement officer at the University of Oregon. By the second year of funding, the staff acknowledged that this activity had fallen by the wayside and decided to discard it. Ironically, the project director made a presentation to a large group of guidance counselors in the fall after the project had ended. One research associate speculated that the activity was difficult to implement because it was poorly understood and because some of the people contacted seemed already well aware of the issues, thus making any efforts seem relatively unimportant.

Oregon School Administrators and School Boards

The proposal submitted for the second year of the project called for increased collaboration between SEEL and the statewide organizations of school administrators and school board members. One presentation was given to the group of school board members in November 1977, but there were no continuing contacts. However, the new organization of women administrators in the state (OWEA) planned to have contact with that group after the SEEL Project ended.

In contrast to the limited contacts SEEL had with school board members, the SEEL staff had many contacts with the state group of school administrators. A member of that group's staff belonged to the SEEL advisory board, although by the second year of the project, most of the contacts with the group occurred through OWEA. Meetings were held in 1978 and 1979 to determine ways that OWEA and the state administrators' group could work together. It is unclear how successful these efforts were. A letter to the editor sent from the executive director of the school administrators' group to the OWEA newsletter critized OWEA members for not attending the administrators' annual conference. In fact, no SEEL staff member attended the administrators' conference immediately following the OWEA conference in 1978 or in 1979, although others from CEPM who were not practicing administrators did attend. Perhaps because many of the staff were weary of dealing with what they saw as "male chauvinism" and described meetings as boring, staff members gave low priority to and avoided attending the conferences. Some staff also believed that confronting gatekeepers indirectly, through means such as OWEA and the Oregon Network, were more effective than personal contacts.[17] Although the long-range benefits of contacts made through OWEA may be greater than those made through SEEL, other projects contemplating association with organizations of gatekeepers might consider developing working relationships with these organizations that would minimize stress. Staff who would not mind such contacts could be assigned the tasks.

The Oregon Network and Individual Change

The Oregon Network was designed to document and influence hiring patterns (see Chapter 5) and also, conceivably, to influence those who make hiring decisions. Potentially, its most important impact is to counter the claim of hiring officials that they "couldn't find a woman to hire." This claim was contradicted by the Oregon Network's directory listing of 113 women in 1977-78 and 75 women in 1978-79 who were interested in administrative jobs. The endeavor showed hiring officials that women are interested in becoming administrators. This kind of activity may thus contribute to changing the attitudes of hiring officials.

The Effectiveness of Attempts to Change Gatekeepers

Mainly because the efforts to change gatekeepers' attitudes were not wide-ranging, the monetary cost to SEEL for such efforts was minimal. Conceivably, if the activities had been completed, their cost would be comparable to that for building awareness through organizing and making presentations at meetings. The reason that these activities were not completed is at least partly that the staff decided to focus on indirect methods such as the preparation of materials. In addition, the emotional strain caused by contacts with gatekeepers took its toll on some SEEL staff members, and this psychic cost may have contributed to SEEL's failure to continue to maintain the contacts and the project's decision to work indirectly through OWEA.

MAKING REPLICATION EFFORTS

The original SEEL proposal included a concern with replicating the project's efforts and specified that various publications, the one-term course, and the guest presentations to classes be pilot-tested at a university in another state. The site was selected because the state had more minorities than Oregon did and because a former CEPM staff member was employed at the university and agreed to supervise the pilot testing.

Although the liaison person was paid a nominal fee of $500 to supervise the pilot testing, the agreement was essentially informal and voluntary, and that person's other full-time responsibilities took precedence over the pilot testing. Further, the SEEL staff from the outset gave low priority to the pilot testing, probably because initially there were no materials to test. One early SEEL activity, a statewide conference, was replicated at the test site; however, except for one brief visit by a SEEL staff member, a few letters, and even fewer phone calls, subsequent communication between the University of Oregon and the other university was minimal. By the end of the second year, both parties tacitly acknowledged the demise of their plans for collaboration.

In general, the SEEL staff devoted a good deal of effort to promoting change in the awareness and attitudes of individuals. Many of the awareness-building activities tended to be applied indirectly, as through the development of materials or contact with friendly audiences, rather than directly, i.e., through attempts to meet with powerful gatekeepers or neutral or potentially hostile audiences. While it is always difficult to assess the impact of such attempts to change attitudes, at least the products developed by the project will be available for others to use in the future.

NOTES

1. Jean Stockard, Patricia A. Schmuck, Kenneth Kempner, Peg Williams, Sakre Edson, and Mary Ann Smith, Sex Equity in Education (New York: Academic Press, 1980).

2. Joan R. Acker et al., "A Feminism Scale" (Working Paper No. 1, Center for the Sociological Study of Women, University of Oregon, 1974).

3. Patricia A. Schmuck, "The Spirit of Title IX: Men's Work and Women's Work in Oregon Public Schools," OSSC Bulletin 20 (October 1976):1-30.

4. Patricia A. Schmuck, "Sex Equity in Educational Leadership in Oregon Public Schools," OSSC Bulletin 23 (November 1979):1-26.

5. Jean Stockard et al., Sex Equity in Education.

6. Joan Kalvelage, Patricia A. Schmuck, and Jane Arends, "Reduction in Force and Affirmative Action: A Reconcilable Dilemma," Educational Economics 3 (January/February 1978):6-12.

7. Jean Stockard and Joan Kalvelage, "A Selected Annotated Bibliography on Job Sharing," unpublished paper, Center for Educational Policy and Management, University of Oregon, 1977.

8. See the following issues of the SEEL Report: May 1977; March 1978; May 1978.

9. "Oregon Survey Shows Support for Women Administrators, Phi Delta Kappan 59 (June 1978):728; and Ann Z. Smith (ed.), "Women as Administrators," Education Recaps 17 (June 1978):12.

10. See Susan C. Paddock, "Women's Careers in Administration," doctoral dissertation, University of Oregon, 1977; and Susan C. Paddock, "Male and Female Career Paths in School Administration," in Patricia A. Schmuck et al. (eds.), Educational Policy and Management: Sex Differentials (New York: Academic Press, 1981).

11. See the May 1978 issue of the SEEL Report; also see Sakre K. Edson, "Differential Experiences of Male and Female Aspirants for Public School Administration: A Closer Look at Perceptions in the Field," paper presented at the annual meeting of the American Educational Research Association, San Francisco, April 1979.

12. Kenneth Kempner, Rita Pougiales, and Patricia Schmuck, "The Documentation and Evaluation of a Social Change Project: Sex Equity in Educational Leadership," paper presented to the American Educational Research Association, Toronto, March 1978; and Rita Pougiales and Kenneth Kempner, "Evaluation of Ideology: A Case Study of Social Change," paper presented at the annual meeting of the American Educational Research Association, San Francisco, April 1979.

13. Mary Ann Smith, Patricia Schmuck, and Phil Kessinger, Sex Equity in Educational Leadership, 20-minute slide-tape show, is not available from the WEEA Publishing Center. For additional information, contact Patricia Schmuck, College of Education, University of Oregon.

14. P. H. Rossi and W. Williams, in Evaluating Social Programs (New York: Seminar Press, 1972), discuss the difficulties of trying to produce social change through focusing on individuals' attitudes. Using anti-smoking crusades as an example, Rossi and Williams note that it is much easier to create media campaigns than to change the tobacco industry itself. Similarly, it was probably easier for SEEL to attempt to build awareness than to try to alter organizational practices. For a fuller discussion, see Kenneth M. Kempner, "A Conceptual Framework for the Evaluation of Planned Social Change," Ph.D. dissertation, University of Oregon, 1979, pp. 157-158.

15. Sakre K. Edson, "Differential Experiences of Male and Female Aspirants for Public School Administration."

16. A. Fishel and J. Pottker, "Performance of Women Principals: A Review of Behavioral and Attitudinal Studies," Journal of the National Association of Women Deans and Counselors 38 (Spring 1975):110-115.

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17. This belief in the utility of indirect means of change coincides with SEEL's decision, noted earlier, to devote more attention to changing the attitudes of individuals than to changing organizational practices. Although such indirect means are probably easier for a staff to implement, their effectiveness may not be as high. It is conceivable that a staff which, in Coleman's terms, was concerned more with "social conditions" than with changes in individuals would recognize the political advantages in changing organizations rather than individuals, and perhaps would be less easily discouraged. See James Coleman, "Conflicting Theories of Social Change," *American Behavioral Scientist* 14 (May/June 1971):633-650.

CHAPTER 4

CHANGES IN ORGANIZATIONS

Just as the first SEEL proposal suggested that changes in individuals' attitudes and beliefs were necessary to attain sex equity in education, so, too, did it suggest that changes in organizational practices and priorities were required. This chapter reviews SEEL's efforts to accomplish organizational change. While some of the activities discussed in Chapter 3 are also reviewed here, the focus of the discussion is different. Chapter 4 looks not at how individuals' attitudes and beliefs may have changed during the SEEL Project, but at the attempts made to alter organizational priorities and procedures. Examined first are the plans and results attained within training programs in education; then, the changes proposed for the world of work; and finally, the attempts to build the capacity for continuing reform within the state through new and existing organizations.

RESTRUCTURING TRAINING PROGRAMS IN EDUCATION

An important goal of the first SEEL proposal was to restructure the content of training programs in educational administration. To accomplish the goal, the SEEL staff proposed activities to change the requirements for a certificate in educational administration and teaching so that course work in sex inequities would be a required part of the curriculum. SEEL also proposed to add material on sex inequities to the curriculum at the University of Oregon and Portland State University, to alter the recruitment process so that by the end of the second year of the project an equal number of males and females would be enrolled at both institutions, and to provide stipends for women students attending graduate school in administration. This last activity, however, was dropped very early in the project, when WEEA officials decided that it should not be funded.

Changing Certification Requirements

The original SEEL proposal called for altering the state of Oregon's requirements for administrative and teaching certification so that familiarity with "course content on sex-role socialization and stereotyping" would be required. In the first year of the project, the state legislature passed a bill requiring that applicants for teaching certificates or their renewal demonstrate knowledge of federal and state statutes pertaining to discrimination.[1] The requirements became effective on October 15, 1978.

The SEEL staff did not testify, or help in other ways to pass this legislation. Instead, in February 1977, the staff member who held a faculty position in the College of Education at the University of Oregon wrote an extensive memo to the state commission responsible for certification standards. The staff member recommended that the general study of school law and contract management be required for Oregon's standard principal's certificate and that applicants for the standard administrative certificate receive instruction related to equal employment opportunity and affirmative action. The recommendations were accepted by the state commission.

Instituting Course Content on Sex Inequities in the College of Education

The original proposal specified that during the first year of funding, the SEEL staff would persuade the College of Education faculty at the University of Oregon to "add courses or provide content on sex-role socialization and stereotyping within already established courses." The staff also planned to convince the faculty of Portland State University's administrator and teacher training programs to do the same. The hope was that all education students would be required to complete courses that had content related to sex equity in education.

Chapter 3 noted the project's success in teaching its own course and in visiting a few other courses within the College of Education at the University of Oregon and Portland State University, as well as noting SEEL's failure in having material included in the extension training program for administrators. The SEEL staff was not successful in integrating the term course as part of the regular curriculum; nor was it successful in ensuring that the content would be part of the course work required of all students. The course was always taught by SEEL staff members, although the original plans had called for the inclusion in the teaching force of a tenured faculty member from the College of Education. The faculty members in the College of Education apparently lacked the interest and/or expertise to participate, and their involvement was not actively solicited by the SEEL staff.

Some content on sex discrimination and sex inequities in education was, at the time of this writing, to be included in a new course covering inequalities related to sex, race, and handicaps that was to be offered yearly at the University of Oregon. There is little evidence, however, that this change occurred because of the pressures of the SEEL staff; instead, the course developed as a response to changes in Oregon certification laws, requiring much greater attention to handicapped learners and some attention to race and sex differences. The SEEL staff paid less attention to teacher training programs than to administrative training programs and less attention to Portland State University than to the University of Oregon. No attempt was made to alter the curriculum at Portland State University, although members of the SEEL staff gave three guest lectures in Portland State University courses over the three years of the project.

Changing Recruitment Policies

As noted in Chapter 3, as part of the attempt to train and recruit women for educational leadership, the SEEL Project proposed to develop plans for recruitment activities. The eventual goal was to have equal male and female enrollment at both the University of Oregon and Portland State University by the end of the project's second year. The proposed meetings at the University of Oregon and Portland State were never held, and no official policy changes were developed as a result of pressure from SEEL. Nevertheless, over the years of the SEEL Project, the proportion of women enrolled in the administrative certification programs at the University of Oregon tended to increase (see Table 4-1).[2] In fact, the increased representation of women from 1974-75 to 1978-79 in the certification program at the University of Oregon is so large that it cannot be attributed to chance ($Z = 3.438$, $p < .0005$).

TABLE 4-1

WOMEN IN EDUCATIONAL ADMINISTRATION GRADUATE PROGRAMS, UNIVERSITY OF OREGON, 1974-75 THROUGH 1978-79

	1974-75 (%)	1975-76 (%)	1976-77 (%)	1977-78 (%)	1978-79 (%)
Doctor's and Master's[*]					
Men				57.1	61.5
Women				42.9	38.5
Total				100.0	100.0
N				42	65
Certification (nondegree)[†]					
Men	87.6	84.9	83.6	83.5	76.8
Women	12.4	15.1	16.4	16.5	23.2
Total	100.0	100.0	100.0	100.0	100.0
N	201	324	416	647	716

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[*] Data for the doctor's and master's programs at the University of Oregon are available only for the academic years 1977-78 and 1978-79.

[†] Does not include students admitted prior to 1974; thus, the figures for the early years underestimate the actual enrollment. In addition, if the trend toward a greater representation of women is long-term, beginning before 1974-75, the representation of women in 1974-75 is probably overestimated above (because earlier, more male-dominated cohorts are not included to balance the figures) and the long-term gain over the five years is actually a conservative estimate.

Even though this increase occurred without specific attempts by the SEEL staff to recruit women as certification candidates, it may be more important in changing the sex ratio of employed administrators than any changes that could have occurred in the proportion of women students in doctor's or master's programs. This is because certificate holders, more than degree recipients, tend to aspire to administration positions in the schools.

The failure to carry out the original plans of altering the recruitment process and of instituting the course probably stems from both the nature of the SEEL staff and the nature of the target audience, i.e., the training institutes. By the end of the first year, no SEEL staff member was a regular member of the faculty of the College of Education at the University of Oregon. Even though the staff members could assertively articulate their desires, they lacked the legitimate power to produce change in the organization. While it is conceivable that pressure from outside the education faculty, such as the demands of students or community members, could have produced the desired objectives, the SEEL staff did not attempt to mobilize such actions. The staff lacked contacts at the other state institution offering certification in administration and did not pursue efforts to encourage recruitment or alter the curriculum there.

Other projects that focus on recruitment activities should probably be aware of the need to understand the procedures involved within academic departments in order to produce change. Such projects should, if possible, have as staff members or as key associates persons who possess strong institutional ties and are committed to working to produce change. Given the very small representation of women in administration, however, there may not often be such committed persons within academic departments. In that case, procedures more appropriate for changing organizations through pressure from outside, rather than from within, could be considered.[3]

CHANGING THE WORLD OF WORK

Several members of the SEEL staff were interested in developing permanent part-time employment as an alternative to full-time work. The original proposal called for creating a job-shared position within the staff, and for investigating and documenting the costs and benefits of job sharing in the project and within a school district. The second-year proposal called for extended research into the area. As noted in Chapter 3, an annotated bibliography of the literature on job sharing and an article advocating its use were developed, and several presentations on the topic given, by the end of the first year.[4]

A job-shared position was created on the SEEL staff. The job title was project assistant, and the position was designed for people whose skills were underused in their previous jobs. Two people shared the position through the first year of the project; one of them then left the job, and the other continued in a permanent part-time slot thereafter. The job-sharers generally developed their own division of labor, each taking on different tasks for the project and each working different hours. A diary the job-sharers kept during the first six months of their employment indicates that they both enjoyed the working relationship and the reduced hours of employment.

Although one person wrote to the project indicating interest in a job-shared position and the project responded by providing information, the person did not show continued interest and the project did not pursue its intention to develop a job-shared position within a school district. Neither were the research activities outlined in the second-year proposal implemented although the area of job sharing was included for a short time in the research plans of the host institute, CEPM. In addition, participants in one group attending the SEEL conference expressed interest in forms of work restructuring that included not just job sharing, but the participation of teachers in school management as well. The concerns and suggestions of these conference participants were, however, not pursued.

In their review of the literature regarding job sharing, the staff members assigned to the task came to doubt its usefulness as a change technique that would help alter women's subordinate position at work and in the family. They believed that job sharing could be used to boost affirmative action figures artificially and, by limiting women to half-time positions, could be used to promote the idea that women should devote much of their energy to their homes, thus ignoring the economic reality that many women must work to support their families. This conclusion was reached in the first year of the project, but was held primarily by the staff members who were committed to a more radical feminist perspective. Although these concerns were voiced in staff meetings as early as winter 1977, they were not effectively communicated to other staff members until more than a year later. Consequently, later proposals also included activities related to job sharing, even though those persons assigned to the tasks no longer believed that job sharing was a worthwhile solution. Other projects that are concerned with the restructuring of jobs should deal openly with political issues related to work and feminism, and be sure that communication lines are open within the project in order to avoid the wasted efforts of the SEEL staff.

BUILDING THE STATE'S CAPACITY FOR REFORM

In the original proposal and throughout the three years of the project, the SEEL staff recognized that the project would end and that, if continued reforms were to be accomplished, some legacy of change in other organizations would need to remain. Several ways of doing this were proposed: creating a statewide advisory board of influential people in education; having an impact on the state associations of school administrators and school board members; and forming a statewide organization of women school administrators. Over the years, a relatively small amount of money was devoted to these activities; most of the funds involved travel costs and costs associated with hosting meetings.

State Advisory Board

The state advisory board for SEEL was proposed as a way to build the state's capacity to continue the project's efforts for change beyond the end of the funding contract. Initially, it was proposed that the board would continue operating the Oregon Network, assuming leadership and some responsibility for the continuation of SEEL's activities.

Members of the board included prominent people in education from throughout the state, such as an assistant state superintendent of education, the executive secretary of the state group of administrators, an affirmative action officer from a large school district in the state, and a member of one of the state boards of education. The state advisory board met three times in the project's first year and one time in the project's second year. At these meetings the advisory board was informed of the project's activities, and a good deal of time was spent discussing the form the Oregon Network should take. Although no meetings were held with the advisory board in the third year of the project, contact was maintained on an informal basis, and input from individual board members was sought from time to time. The advisory board was instrumental in developing the slide-tape show and in achieving slight changes in the format of the *SEEL Report*. Although the advisory board ultimately did not take over the Oregon Network--perhaps because its members were so prestigious and busy (in fact, two people never attended a meeting)--it nevertheless offered valuable advice to the project in its early stages.

School Administrators and School Board Members

In the second-year proposal, the SEEL staff explicitly recognized the important role of hiring officials in changing the sex inequities in educational administration. SEEL proposed to convince the state associations of administrators and school board members to place sex-equity issues high on their priority list of actions to be taken in the coming years. A brief formal presentation was made to the organization of school board members by the SEEL Project, but there was no ongoing contact. By contrast, there were several contacts with the group of school administrators during the project's three years, although in the second and third years, most of these contacts were made through OWEA, with SEEL remaining in the background. In summer 1977, the group of administrators adopted a resolution that called for the recognition of sex inequities in administration and an attempt to remedy that situation.

Table 4-2 presents the results of a content analysis of the programs of the annual meetings of the state group of administrators from 1976, before the beginning of the SEEL Project, to 1979, the last year of the project. The number of women listed on the program was noted, and the nature of their participation was categorized as presiding at a general session, as giving a presentation to or convening a group session or workshop, as giving a keynote address to the total group, or as giving some other type of presentation such as greetings or invocations. Cases in which the sex of the participant could not be determined from the name or from asking knowledgeable people were eliminated from the analysis. Women's representation on the programs clearly increased from 1976 to 1979. In fact, the increase in the total figures from 14 out of 74 and 15 out of 78 (both 19 percent) in 1976 and 1977, to 24 out of 76 (32 percent) in 1979 is greater than would be expected by chance ($t = 1.857$, $df = 148$, $< .025$, $p < .05$). This increased representation of women indicates that the organization probably seriously considered and acted upon the commitment made in summer 1977 to promote the inclusion of women in educational administration.

TABLE 4-2

WOMEN IN THE ANNUAL PROGRAMS OF THE OREGON STATE ORGANIZATION OF SCHOOL ADMINISTRATORS, 1976-79

	1976		1977		1978		1979	
Type of Participation	Women (%)	Total (N)	Women (%)	Total (N)	Women (%)	Total (N)	Women (%)	Total (N)
Presiding	17	29	17	30	14	29	31	29
Presenting to or convening group sessions	18	38	22	41	27	37	26	38
Giving keynote addresses	24	4	33	3	40	5	50	6
Other (greetings, invocations)	33	3	0	4	67	3	67	3
Total	19	74	19	78	24	74	32	76

NOTE: There are seven missing cases; these were omitted from the computation of percentages.

Oregon Women in Educational Administration

That a statewide organization of women in educational administration had begun was apparent at the end of the first SEEL conference in 1977. This group, instead of the statewide advisory board, became the organization that was to take over some of the functions of SEEL after the project's end. A small group of women administrators from throughout the state, most of whom had already had some contact with the project director, met with several staff members at the end of the first SEEL conference. These women helped the SEEL staff present to the state association of school administrators the resolution that was passed in summer 1977.

The first meeting after the 1977 SEEL conference focused on plans for the Oregon Network. The group, however, eventually evolved into a support group for women administrators. Part of the impetus for this move occurred in fall 1977, when the project director attended a large meeting of women interested in administration in a neighboring state and came to believe that such a group would be helpful in Oregon. During the 1977-78 school year, the original group of women and others met periodically with members of the SEEL staff to discuss the nature of the Oregon group and to plan a two-day conference to be held before the statewide conference of school administrators in June 1978. During that year, the group decided not to affiliate with the national organization of women administrators or its counterpart in Oregon, at least partly because of the large expense involved in such affiliation, but decided instead to form its own organization, called the Oregon Women in Educational Administration (OWEA). The staff ethnographer noted that some of the women originally involved disagreed with this tactic. Most were members of the national group, and OWEA's bylaws were adapted from those of the national group.

A six-member steering committee for OWEA met in August 1977 to plan regional meetings throughout the state for that fall. Several meetings were held, most frequently in the Portland, mid-Willamette Valley, and Eugene regions of the state. The attendance at these meetings averaged 30 women each; most, if not all, of them were aspiring or practicing administrators.

A major topic of concern for the first regional meetings, held in fall 1978, was the extent to which OWEA should be an advocate for women seeking advancement in administrative positions. At the August 1978 meeting of the steering committee, support was given to one member who had filed a complaint about the administrative hiring practices of a large school district in the state. The various regional groups discussed what they believed OWEA's position should be and generally agreed that a position of advocacy would be appropriate when the facts suggested that an injustice had been committed. Several members of OWEA testified in support of that member's complaint.

Beginning in fall 1978, a monthly newsletter was sent to all who had attended the 1978 OWEA conference. This newsletter reported the activities of steering committee and regional meetings, reported plans for the upcoming OWEA conference, and included other news of potential interest to members. The newsletter was prepared by the SEEL staff; printing and mailing costs were paid by OWEA.

A second OWEA conference--this one planned mainly by the steering committee, with only minimal assistance, apart from a good deal of secretarial help, from the SEEL staff--was held in spring 1979, immediately preceding the state administrators' conference. A total of 203 people registered for this conference, and 187 actually attended. Five new steering committee members were selected.

By summer 1979, about 100 people belonged to OWEA, and well over 200 were on the mailing list. At that time, OWEA planned to continue, during the next year, some of the SEEL Project's activities, including a newsletter, the Directory of Administrative Candidates (see the discussion of the Oregon Network in Chapter 5), the yearly conference, and regional meetings. OWEA was also interested and in fact was more successful than SEEL was in maintaining contact with some of the organizations of administrators and school board members, largely because some of the OWEA members already belonged to these groups. Yet because the SEEL staff provided most of the clerical work and administrative coordination for OWEA, it was anticipated at the time of this writing that the group might find it difficult to maintain itself.

In general, the SEEL Project's efforts to develop changes within organizations were less successful than its attempts to alter individuals' attitudes. The SEEL staff devoted less time and effort to the proposed organizational changes than to those involving individuals; yet the lack of success may also have resulted in part from the strategies employed. Other projects should consider whether they need to apply pressure external to the organization or whether internal means will produce the desired change. For instance, changes in the college curriculum and in recruitment practices might have been more easily produced if SEEL had employed external, rather than internal, pressure. Other projects should also consider whether and, if so, how much to affiliate with already existing groups. For instance, part of the rationale for starting OWEA was the belief that the existing groups of administrators did not support women who aspired to administration. OWEA was able to serve this group of people--an essential function if the number of women in administration is to increase. Yet communication from the executive directors of both the state administrators' group and the national organization of women administrators indicated displeasure with SEEL's eventual decision to work outside of these organizations. This may indicate either that potential sources of change were being ignored or that, in the case of the national women's organization, the new group, OWEA, was encroaching on their territory. Other projects should seriously weigh the gains to be made by forming a new organization and the gains that are possible from developing potential allies within existing groups. Given the extent of the attempts by the Oregon state administrators' organization to include women in its convention programs, the possibilities of such an alliance seem promising.

NOTES

1. H.B. 2360, 1977 Oregon Lesiglative Session, Oregon Laws, 1977, Chapter 805.

2. Although attempts were made, it proved impossible for SEEL to obtain comparable data from Portland State University. Because the University of Oregon's program is much larger, this lack of data is probably not serious.

3. For discussions of the distinctions between interventions that are internal and those that are external to organizations, see Kenneth M. Kempner, "A Social-Psychological Analysis of the Context for Change," in Jean Stockard et al., Sex Equity in Education (New York: Academic Press, 1980); and H. A. Hornstein, "Social Psychology as Social Intervention," in M. Deutsch and H. A. Hornstein (eds.), Applying Social Psychology (Hillsdale, N.J.: Lawrence Elaum, 1975). For an application of this distinction to the results of the SEEL Project, see Kenneth M. Kempner, "A Conceptual Framework for the Evaluation of Planned Social Change," Ph.D. dissertation, University of Oregon, 1979.

4. See Jean Stockard and Joan Kalvelage, "A Selected Annotated Bibliography on Job Sharing," unpublished paper, Center for Educational Policy and Management, University of Oregon, 1977; and Joan Kalvelage, Patricia A. Schmuck, and Jane Arends, "Reduction in Force and Affirmative Action: A Reconcilable Dilemma," *Educational Economics* 3 (January/February 1978):6-12.

CHAPTER 5

CHANGES IN HIRING PROCESSES: THE OREGON NETWORK

To develop the state's capacity for reform after SEEL's funding ended, the original proposal called for an "Oregon Network" that would coordinate the exchange of "ideas, materials, and human resources to match female applicants with administrative openings, implement Title IX, and achieve sex equity in Oregon's public schools." It was proposed that an existing institution such as the Oregon State Department of Education, a school district, or CEPM continue the operation of the Network when SEEL's funding ended, and that one of the project assistants coordinate the Network and its activities. This chapter reviews the development of the Oregon Network, describes the various components of the Network, presents data about those changes in the sex ratio of administrators in Oregon which may have occurred as a result of the Network, and discusses the effectiveness of the activity.

THE DEVELOPMENT OF THE OREGON NETWORK

While the original proposal called for beginning the Oregon Network in fall 1976, in reality the endeavor received little attention from the SEEL staff during the first year of funding. The staff explicitly recognized, however, that the Network would be the major task in the project's second year. Input was solicited from the advisory board at its January 1977 meeting on how the Network could be organized. As was true of the original proposal, the various models suggested at that meeting each involved the passing of information to applicants and school personnel but did not provide for implementing the matching process. The group of women who eventually formed OWEA and who met after the first SEEL conference also provided advice on the formation of the Network and were instrumental in ensuring the support of the state organization of administrators for the project. Although some staff members at first advocated that the Network be coordinated with an already existing organization, it was eventually decided that the Network would be independent of the Oregon State Department of Education and the existing state organizations of administrators.

The final form of the Oregon Network included both service and research functions. It was believed that there was a need to inform hiring officials of women who were available for jobs, as well as a need to inform potential job seekers of opportunities. There was also a concern that much information about the actual hiring process--the number and nature of administrative vacancies in the state, the nature of the applicant pool, who makes hiring decisions, and the criteria for hiring into administrative positions in public schools--was largely unknown. Thus, it was decided that the Network would be a clearinghouse of information about aspirants and vacancies, and that the Network's functions would include maintaining a directory of administrative candidates and a listing of administrative vacancies in the state. It was also decided that the Network would document the nature of the vacancies and, insofar as possible, the hiring process in all school districts in the state that had vacancies in 1977-78.

A good deal of money and a relatively large staff were used to carry out these tasks. One half-time research associate was hired in June 1977 to coordinate the activities of the Network. In addition, six field coordinators (at about one-third time each) were hired to gather the data on vacancies and the hiring process. Each field coordinator lived in the area of the state where he or she gathered data. Three field coordinators were women. All had had some previous contact with school districts, and one was a retired school superintendent. The field coordinators were chosen because they were familiar enough with the districts in the locale to know where and how to gather data without offending the district personnel. The SEEL staff agreed to provide complete confidentiality to the districts and to publish the results of the study in aggregate form only.

Approximately $57,500 was spent on the Oregon Network from 1977 through 1979. The expenses involved, excluding secretarial time, are shown in Table 5-1. Most of the money went to provide the salaries and travel expenses of the research associate and the field coordinators. Only a very small amount (less than 1 percent) of the total expenditures was used for printing and postage.

To help gain entry into school districts, the SEEL staff solicited the aid of the state organization of administrators. In fall 1977, the president of this group, the SEEL project director, and the research associate responsible for the Oregon Network sent a joint letter to all school superintendents in the state. The letter described the purpose of the Oregon Network and asked the superintendents to cooperate by sharing information with the representatives of the SEEL staff.

TABLE 5-1

EXPENSES OF THE OREGON NETWORK

Salaries of research associate, field coordinators, and expenses for one year	$47,000
Salary of research associate for second year (half-time)	10,000
Printing and mailing costs of directories	500
Total	$57,500

THE NETWORK'S SERVICE FUNCTIONS

The Oregon Network hoped to serve both applicants for administrative positions and school districts having administrative openings by providing both with useful, up-to-date information. The two products of these efforts were the Directory of Administrative Candidates and the Administrative Vacancy Listing.

The Directory of Administrative Candidates

Six issues of the Directory of Administrative Candidates were distributed in 1977-78, and four issues were distributed in 1978-79. In 1977-78, 192 aspirants were listed (58 percent female). In 1978-79, 189 aspirants (51 percent female) were listed. Staff members decided to include men in the directory in the belief that districts might use a list of both women and men candidates more often than they would use a list of only women candidates.

To solicit names for the directory, a form was widely distributed to educators throughout the state by use of mailing lists from the state administrators' group, the Oregon State Department of Education, and SEEL's newsletter. The forms were also distributed to graduate students at CEPM, at the OWEA conference in 1978, and at three conferences of women in education in 1977 and 1978. Information requested on the form included the applicant's name, sex, race, address and telephone number, degrees and certificates held, areas of special interest, and types of position sought. Publicity regarding the directory noted that SEEL did not screen or rate candidates or endorse any individual. The directories were distributed to all districts that had administrative vacancies, as well as other agencies such as the state organization of administrators, the Oregon State Department of Education, and university placement services in the state.

Information on the aspirants listed in the directory in 1977-78 was gathered through a mail questionnaire sent in spring 1978. The questionnaires were returned by 154 people, or 80 percent of the 192 people listed. Fifty percent of those who responded to the questions stated that they were very satisfied with the directory listing, and 18 percent said that they were somewhat satisfied. In their final interviews with hiring officials in each school district that had administrative openings, the field researchers asked if the districts used the directory in recruitment. Twenty-nine percent of the districts contacted reported that they did use the directory.

The women and men listed in the directory were about equally likely to return the questionnaires. Yet there were some statistically significant differences in demographic characteristics, professional preparation, and immediate career plans and goals. Although the women and men were similar in age ($\overline{X} = 37.8$ years, $s = 7.9$ for women; $\overline{X} = 36.4$ years, $s = 7.2$ for men), 93 percent of the men were currently married, while only 52 percent of the women were currently married ($t = 5.88$, $df = 127.59$, $p < .001$). The men were much more often already employed in an administrative position, while the women were much more often employed as teachers, as counselors, or in some other non-administrative position ($t = 4.89$, $df = 148$, $p < .001$). More men than women had some kind of administrative certificate ($t = 4.88$, $df = 152$, $p < .001$), including a superintendent's credentials ($t = 3.18$, $df = 122.26$, $p = .002$).

Given these differences in preparation and background, it is not surprising that the men and women tended to have different immediate aspirations and plans. Men were more likely than women to note an interest in general administration and management ($t = 2.70$, df = 132, $p = .008$), and women more often than men professed interest in the area of staff development, personnel, and work with in-service and student teachers ($t = 3.27$, df = 128.94, $p = .001$). There were no significant differences, however, in the frequency with which men and women noted interest in other areas such as curriculum, special education, early childhood, counseling, and student services. Sex differences clearly appeared in men's and women's administrative career goals. Men more often than women aspired to superintendent, assistant superintendent ($t = 3.63$, df = 145, $p < .001$), and principal positions ($t = 2.70$, df = 145, $p = .008$). Women more often than men aspired to the frequently less powerful roles of assistant principal ($t = 2.22$, df = 145, $p = .028$), director and supervisor ($t = 2.60$, df = 145, $p = .010$), and coordinator, consultant, and administrative assistant ($t = 2.79$, df = 145, $p = .006$).

There were no significant differences in the respondents' report of the number of districts that had contacted them. Yet the men respondents did appear to be seeking jobs on their own more actively. They were more willing than women to relocate to accept a new position ($t = 4.58$, df = 148.75, $p < .001$), even though they, more often than women, were married. On the average, the men reported having applied for a total of about four more positions than the number reported by the women ($t = 1.94$, df = 78.61, $p = .055$).

In general, then, SEEL's experience with the Directory of Administrative Candidates suggests that such a directory will be used by both male and female candidates. The analysis reported above, however, suggests that the men may be well launched on their administrative careers, whereas the women may be just beginning, or perhaps just contemplating beginning, careers in administration. Districts appeared to use the directory and to contact female and male aspirants with approximately equal frequency.

The Administrative Vacancy Listing

The six field coordinators helped gather data for the Administrative Vacancy Listing. In his or her region, each field coordinator contacted the hiring administrator in each district that had more than 50 students. These contacts were made either in person or by phone. Perhaps because of the support from the state administrators' group, these initial contacts were almost always friendly, and of the 302 districts contacted, only two small districts refused to cooperate. In this first contact the field coordinators introduced themselves and explained the purpose of the Oregon Network. They asked districts to notify them when vacancies occurred, and they also maintained periodic telephone contact with each district to check about possible vacancies. The field coordinators made follow-up visits to districts that had vacancies and documented the nature of each opening. When an administrative position was filled, the field coordinator returned to the district to document the procedures and processes, thus gathering the data to be used in the research function of the Network.

While many notices of vacancies came from the districts, others came from the state administrators' group or from university placement services in the state. The resulting list of vacancies was sent to all people in the directory and to other agencies such as the state organization of administrators, the Oregon State Department of Education, and university placement bureaus. When an opening had a deadline that fell before the next scheduled printing of the listing, a special mailing was sent to those people in the directory who had an interest in that kind of position. The survey of candidates in the directory found that 54 percent were very satisfied and 30 percent were somewhat satisfied with the vacancy listing.

A total of 202 positions appeared in the Administrative Vacancy Listing. An analysis of the differences between open positions that were listed in the vacancy listing and those that were not listed showed no significant differences in position titles or responsibilities. However, there was a definite trend for positions that were filled only within a district and/or only by appointment to be advertised for less than two weeks ($t = 11.81$, $df = 186.59$, $p < .001$) or not to be listed at all ($t = 6.31$, $df = 189.48$, $p < .001$). Those positions advertised in the Oregon Network listing were also more often advertised at universities in Oregon ($t = 13.11$, $df = 276.90$, $p < .001$), with state school board and administrative groups ($t = 11.88$, $df = 294$, $p < .001$), with other agencies such as the state employment bureau ($t = 3.99$, $df = 294$, $p < .001$), or out of state ($t = 5.11$, $df = 294$, $p < .001$). In general, the Administrative Vacancy Listing appears to have been used as a supplement to already existing means of advertising.

ADMINISTRATIVE HIRING IN OREGON SCHOOLS IN 1977-78

A complete analysis of the data gathered by the field coordinators on the hiring process in Oregon schools was not completed by the end of the project's funding. A report of the preliminary results was included in the May 1979 issue of the SEEL Report and presented at the 1979 AERA meetings.[1] This section focuses on that evidence gathered by the field coordinators which may help indicate the effect the Oregon Network had upon hiring within the state.

Although more than half of the people listed in the directory were women, only about 20 percent of the vacancies during the year were filled by women. However, this may represent an increase from previous years in the proportion of women hired. Table 5-2 shows the sex of the incumbent and of the person hired for each type of administrative position documented in 1977-78. While women were a minority of those hired for each position (except for the consultant and "other" categories), they were hired more than would be expected, given the representation of women among the incumbents. In fact, the total figures show that women were hired almost twice as often as they were represented in the positions originally. This difference is significantly greater than chance ($t = 2.647$, p (one-tail) $< .005$).

Women seem more likely to have been hired for a job previously held by a woman or for a newly created position. Of the positions in which the incumbent was male, only 13 percent of the new employees were female; of

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TABLE 5-2

WOMEN INCUMBENTS AND WOMEN HIRED IN OPEN ADMINISTRATIVE POSITIONS, OREGON SCHOOLS, 1977-78

Position	Women Incumbents		Women Hirees	
	(%)	(N)	(%)	(N)
Superintendent	2.9	34	5.7	35
Assistant superintendent	0.0	2	0.0	4
Principal	11.9	101	14.5	110
Assistant principal	10.0	40	22.4	58
Director/supervisor/manager	23.1	26	24.2	33
Coordinator/special project director	0.0	7	37.0	27
Consultant/specialist	42.8	7	66.7	12
Administrative assistant	16.7	6	38.5	13
Other	50.0	4	50.0	6
Total	12.8	227	21.8	298

NOTE: Twenty-one percent of the open positions in the 1977-78 academic year were new.

those in which the incumbent was female, 45 percent of the new employees were female. Twenty-one percent of the administrative positions filled were new positions, and of these new positions, women filled 41 percent.

It is not surprising, then, that this increased hiring of women generally maintains the previous patterns of sex segregation. Women were more often hired in staff positions than in line positions, in central office positions than in building administrative positions, in elementary schools than in secondary schools, as a subordinate administrator than as the chief officer of a unit or building, and as an assistant principal than as a principal (see Table 5-3 on the following page).

It is important to look at how women fared at each step of the application process. Looking only at the positions that involved recruitment (i.e., those which were not filled by appointment), Table 5-4 compares the percentage of women who were reported as applying for each position, as remaining through the interview and finalist stages of the screening process, and as being hired. Although the differences are not overly large,

TABLE 5-3

PERCENTAGE OF WOMEN HIREES IN ADMINISTRATIVE POSITIONS IN OREGON, 1978

Position	Percentage of Women Hirees
Line administrative positions	16.3
Staff administrative positions	41.5
Central office positions	23.7
Building administrative positions	19.6
Elementary schools (includes middle schools)	25.3
Secondary schools (includes junior high schools)	14.1
Head of unit or building	13.8
Subordinate administrator	33.9
Principal	14.5
Assistant principal	22.4

women do attain final positions at a percentage higher than that of their representation in the applicant pool, but at a percentage lower than that of their representation in the interview or finalist pool. The tendency for women to be hired somewhat more often than they apply does not reach significance when the total figures are compared ($Z = .04$). When the districts were questioned as to why women were not interviewed, were not among the finalists, or were not hired, the most common response from districts was that no women had applied, that no women had reached the preceding stage in the selection process, or that those women who had applied lacked the appropriate experience. Such responses could be expected, given the tendency of the women listed in the directory to have applied for jobs less often than the men had, and to have held administrative positions less often than the men had. These reasons for not hiring women appeared to be the most common in district responses about the superintendent and principal positions.

Interestingly enough, women tended to fare better in appointive positions than in those filled by a recruitment process. While women received 30 percent of the administrative jobs filled by appointment, they received only 20 percent of those filled by recruitment. This trend did not, however, reach statistical significance ($X^2 = 1.768$, $df = 1$, $p = .1836$).

TABLE 5-4

WOMEN AS APPLICANTS, INTERVIEWEES, FINALISTS, AND SUCCESSFUL CANDIDATES FOR ADMINISTRATIVE POSITIONS, OREGON PUBLIC SCHOOLS, 1977-78

Type of Position	Female Applicants (%)	Female Interviewees (%)	Female Finalists (%)	Successful Female Candidates (%)
Superintendent	3.4	1.7	1.4	3.2
Assistant superintendent	12.5	0.0	0.0	0.0
Principal	13.8	19.1	16.3	13.3
Assistant principal	26.2	22.4	31.9	21.3
Director/supervisor/ manager	14.8	20.6	23.8	19.4
Coordinator/special project director	28.1	40.3	42.8	32.0
Consultant/specialist	73.8	50.0	57.9	60.0
Administrative assistant	25.0	23.2	23.3	36.4
Other	26.0	68.0	50.0	60.0
Total	18.8	22.1	22.6	19.9
N	3,904	1,101	554	251
Positions with no data available	36	27	24	0

NOTE: Only positions that were filled by recruitment are included. Forty-eight positions were filled by appointment.

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While a finding that close to 6 percent of all newly hired school superintendents and 20 percent of all newly hired administrators are women is quite impressive, it is possible that the overall figures for the representation of women may have changed only marginally from those of earlier years. For instance, an increase in the total number of positions, as well as the retirements of other women, could make increases in the proportion of women hired virtually meaningless. Table 5-5 compares the proportion of women in various administrative positions in Oregon in 1978-79 (the year after the Oregon Network began) with their proportional representation in earlier years. From these figures it appears that there has been a slight, but steady, increase in the representation of women in school administration in general since 1973-74. The increase has been the most noticeable in the assistant principal and coordinator/consultant posts. The percentage increase of women was higher in 1978-79 than it was in any year since 1974-75 (both periods show an increase of 0.8 percent). Standard tests of significance show that

TABLE 5-5

PROPORTION OF WOMEN IN ADMINISTRATIVE POSITIONS, OREGON PUBLIC SCHOOLS, 1971-72 THROUGH 1978-79

Position	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79
Superintendent	0.8	0.8	0.4	0.8	1.2	0.8	0.8	1.9
Assistant superintendent	5.6	4.5	2.9	5.1	1.3	3.8	1.3	0.0
Principal	6.1	5.9	6.1	6.5	6.7	7.4	8.1	8.4
Assistant principal	5.8	6.2	9.1	6.9	11.8	13.3	12.2	14.5
Director/ supervisor	27.4	24.6	22.6	25.1	20.2	21.0	20.5	18.4
Coordinator/ consultant	35.3	31.1	28.2	37.1	37.5	37.1	39.6	40.9
Total	12.1	11.5	11.2	12.0	12.5	13.1	13.7	14.5
N	1,981	2,068	2,124	2,433	2,256	2,275	2,345	2,403

SOURCE: Data from the Oregon State Department of Education.

while the long-term increase in the proportional representation of women in administration from 1971-72 to 1978-79 cannot be attributed to chance ($Z = 2.4$, $p < .01$), the increase from 1977-78 to 1978-79 (the year in which the Oregon Network could be expected to have an effect) may be due only to chance fluctuations ($Z = 0.8$, $p < .50$).

Even though the increase in the representation of women was higher in 1978-79 than it was in any year since 1974-75, the pattern of increase is similar to that of earlier years. After the decreases between 1971-72 and 1973-74, there appear to be increases of the magnitude of about 0.5 percent to 0.8 percent in women's representation each year. If this rate of change were to remain constant at an average of that from 1973-74 to 1978-79 (.0066 or .66 percent), extrapolation by way of a simple linear function would show that women could be expected to be half of all school administrators by the year 2032. If the highest increase of 0.8 percent each year were to hold, equity in the total numbers of administrators could be expected by the year 2023. Clearly, if changes are to be made within this century, the current rate of change will not be sufficient.

Moreover, this pattern does not ensure equity among specific administrative positions. At a steady rate of change, equity in the top line positions would occur even further in the future. In fact, *decreases* in women's representation are evident for the assistant superintendent and director/supervisor positions. And there were *no* women assistant superintendents in 1978-79. Sex segregation within administration remains a reality. Specific attention must be directed to that problem.

THE EFFECTIVENESS OF THE OREGON NETWORK

The Oregon Network resulted in a directory of administrative candidates, a listing of administrative vacancies, and a wealth of data on the hiring process involved in filling those vacancies. The two lists were distributed to a large number of districts throughout the state, and there is evidence that they were used by both male and female applicants and by districts that had openings.

Unlike many of SEEL's awareness-building activities, the impact of which may not be felt for several years, these Oregon Network activities made it possible to measure changes in hiring in the year immediately following the dissemination of the various lists. Although slightly more women were hired in Oregon in that year (i.e., from 1977-78 to 1978-79) than had been hired in previous years, this change was not statistically significant. Although a full analysis of the data had not been completed at the time of this writing, preliminary results indicated that women tended to fare better in newly created positions and in slots filled by appointment rather than by recruitment. Perhaps in filling these appointive and new positions, hiring officials were under less constraint than they otherwise would have been and could more freely choose women. This issue, however, obviously awaits further analysis.

At a total cost of approximately $57,500, the Oregon Network was the single most expensive activity of the SEEL Project. Other projects wishing to duplicate the Oregon Network's functions might do so at considerably less cost. In fact, because the vacancy listing largely duplicated the listings of other placement services, the Oregon Network's listing was not compiled by SEEL in the third year of the project. The Directory of Administrative Candidates involved only the costs of mailing and printing. Even the data gathered on the hiring process could be collected at much less cost, through such means as telephone calls rather than personal visits, or relying on volunteers rather than paid staff members, especially if the data were not to be used for research. The use of volunteers could also allow more money to be devoted to mailing and printing, so that listings could be issued even more frequently.

In Oregon, OWEA planned to continue distributing the Directory of Administrative Candidates at the end of the SEEL Project's funding. Other projects might consider linking that service with an already established organization, rather than with a new group such as OWEA. In making this decision, however, other projects should weigh various concerns, such as the need for clerical help and financial support versus the desire to use the data as political pressure for change. Other projects might seriously consider the benefits of publicizing those findings which highlight the laudatory and/or discriminatory practices of their school districts. Largely because of its links with a university and a federal funding source, SEEL did not use its data in such a political manner.

NOTES

1. Spencer Wyant and Patricia A. Schmuck, "The Oregon Network: A Research and Service Activity of the Sex Equity in Educational Leadership Project," paper presented at the annual meeting of the American Educational Research Association, San Francisco, April 1979.

CHAPTER 6

AN EVALUATION OF THE SEEL PROJECT

The previous chapters have described the activities SEEL used to accomplish its ultimate objective of attaining sex equity in school administration. In addition, various factors that may have influenced the course and outcome of these activities have been suggested, and these factors include the staff, setting, and target groups of the project. Chapter 6 first explores the legacy of change that has been left by the various efforts of the SEEL Project and then examines whether the changes that occurred in Oregon during the project can be attributed to the efforts of SEEL or to other influences, including general trends in the society. This evaluation prepares the way for the recommendations given in Chapter 7 for other groups interested in developing change.

THE LEGACY OF SEEL

The SEEL Project tried to alter long-standing and extreme sex segregation in the profession of educational administration. The project's activities covered a span of only three years, from fall 1976 through summer 1979. It is undoubtedly difficult to produce social change of the magnitude needed to effect sex equity in administration in that amount of time, yet it is possible that SEEL's activities left a legacy for continued and even greater change in the state. In fact, an important goal in the original proposal was the building of the state's capacity for continuing change. This section describes the products and groups in each of the change areas discussed in Chapters 3-5 that provide a possible "legacy for change"[1]--the attainment of intermediate goals, forming the basis for later, more enduring consequences.

Individual Change

The attempts by SEEL to build awareness of the problems of sex inequity in educational administration may have resulted in an increased consciousness about the issue among individuals throughout the state. These people may continue the efforts to promote sex equity by giving greater attention to affirmative action issues in their own school districts and by participating in groups such as OWEA.

Of more import may be the inclusion of the project director on the advisory and governing boards of several organizations. Perhaps as a result of her exposure on behalf of SEEL throughout the state and the nation, the project director became actively involved in the governing bodies of several organizations during the final year of the project and had an increasing number of speaking engagements. This kind of involvement is one method of continuing to build awareness of the problem of sex inequities.

The careers and beliefs of several other SEEL staff members may also provide a legacy for change. After the project's end, many of them continued to pursue research and action projects involving women who aspire to careers in educational administration and other issues related to sex equity in education.

The products developed by the SEEL staff are being disseminated by the Oregon State Department of Education, by Education Development Center for WEEA, and by a commercial publisher. They will remain for many years after the end of the project, although their ultimate effect is difficult to evaluate at this time. In any case, these products are all resources that can be used in promoting the need for greater sex equity in administration. The various research reports and the book resulting from the term course may be of most use to researchers and people interested in sex equity. The slide show and the informational packets may be of particular use to audiences that are less receptive to and/or knowledgeable about the issue. Current plans call for OWEA to continue regular distribution of a newsletter similar to the SEEL Report to women administrators in Oregon and, in time, to the national SEEL mailing list of approximately 2,000 people.

Besides building individuals' awareness of the problem of sex inequity in administration, the SEEL staff planned activities to change individuals' attitudes regarding women's role in education. Current plans call for OWEA to continue sponsoring a yearly conference and to maintain contact with the state organization of administrators and school board members. OWEA has included in its membership aspirants to administrative careers, yet because the OWEA conference is held in conjunction with the statewide meeting of administrators, the extent to which the effort will help recruit women from the teaching ranks to administration is still unclear. OWEA will also continue to produce the Directory of Administrative Candidates, and this may help gatekeepers to be more aware of the presence of women who aspire to administrative positions. Perhaps the change in the representation of women in the meetings of the state organization of administrators (see Chapter 4) is a sign that preliminary changes have occurred in the attitudes of some gatekeepers.

Changes in Hiring Patterns

The comparative analysis presented in the second part of this chapter notes that the changes in the hiring of women administrators in Oregon during the 1970s probably cannot be attributed to the efforts of SEEL, but instead to a general trend to hire more women in a number of similar states. Yet the legacy developed by SEEL might lead to greater changes in years to come, enhancing this early trend. In addition, the analysis of data gathered through the efforts of the Oregon Network may, when it is completed, aid aspirants in their search for positions and help activists push for changes in hiring procedures.

Changes in Organizations

SEEL's attempts to change organizations involved plans to alter training programs and work structures and to develop groups that could continue SEEL's efforts after the end of the project. Although no organized changes were made in the recruitment practices of the training programs in the state, certification requirements were altered and a course that includes material related to sex equity was being added to the University of Oregon's curriculum. Because the certification change was promoted in the state legislature and might have occurred without SEEL's existence, that change probably cannot be attributed to SEEL, however. And there were no plans to continue efforts to change the structure of administrative positions when the SEEL Project ended.

The most important legacy of the SEEL Project may well be the fledgling organization OWEA. By summer 1979, OWEA had a mailing list of more than 200 people and a paid membership of more than 100 people. Current plans call for OWEA to continue sending a newsletter regularly to the mailing list of women administrators who have attended previous conferences, as well as to continue sponsoring a yearly conference and to continue publishing the Directory of Administrative Candidates. In fact, all of the legacy of SEEL, except for the products and the changes in the state group of administrators, now rests with OWEA.

It is difficult to predict the survival of a fledgling organization, but several important considerations must be noted. The membership of OWEA is enthusiastic. However, the group is not affiliated with any other organization, nor is it based in an agency within the state; thus, OWEA has no base office and no secretarial staff with which to begin its independent existence. Much of the organizational work and all of the clerical help for the group were provided by the SEEL staff until the end of the project. To what extent volunteer labor alone can sustain the efforts once provided by a paid staff is unclear. The next few years will be crucial in determining the effectiveness of OWEA's efforts.[2]

CAN PRELIMINARY CHANGES IN OREGON BE ATTRIBUTED TO SEEL?

The analysis of SEEL's legacy given above is necessarily subjective and speculative, for it is impossible to predict the ultimate impact of the changes in Oregon. It is possible, however, to compare the changes that occurred in Oregon during the SEEL Project with the changes that occurred elsewhere, to see to what extent SEEL, rather than other variables, caused change.

To show that a causal relationship exists, three things are necessary: (a) to show that the presence of SEEL was associated with certain changes related to the sex inequities in the state; (b) to show a time order, i.e., that these changes occurred after the arrival of SEEL; and (c) to rule out other possible causal variables, i.e., to show that SEEL, rather than some other influence, was the cause. While data are not available with which to test the impact of SEEL on changes in attitudes, data are available, from Oregon and comparable states, with which to examine changes in both the proportion of women in administrative positions and the sex ratio in educational administration training programs. In addition, comparative analyses over a period of years of the annual meetings of the state and national organizations of school administrators may indicate the impact that SEEL had on

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gatekeepers within the state. These comparisons can help rule out the possibility that general changes in the society, rather than changes by SEEL, actually produced the changes in Oregon noted in previous chapters. Because these data indicate changes in those who make hiring decisions, in the nature of the potential applicant pool, and in the actual sex composition of the administrative field, they are probably of key significance in assessing SEEL's ultimate impact. It must be remembered, however, that the analysis presented here goes only through 1979 and that the full impact of SEEL's activities may not be felt for several years.

Log-linear analysis of contingency tables is used in each of these comparisons.[3] This analytic technique requires the researcher to postulate various models of anticipated results. In this analysis, special attention is paid to models showing that changes in Oregon over time were different from those in other states. The actual data are then compared with the postulated models, using a chi-square-like statistic to determine which model most accurately describes the data. The extent of effects within the fitted model can then be examined. In all the analyses discussed here, standardized-effect parameters are used; these can be interpreted as Z-scores and describe the extent to which cell frequencies vary from what would be expected by chance.

Only those numerical results which are the most central to the analyses are reported in this chapter. For a description of the raw data and the complete results, please see the appendix.

The Hiring of Women Administrators in Four Western States

Table 5-5 showed that there has been an increased representation of women in school administration in Oregon since 1973-74 and that there were somewhat larger increases after the year in which the Oregon Network was instituted. Tests of significance showed that the long-range change from 1971-72 to 1978-79 was greater than would be expected by chance. It may well be, however, that these changes were prompted by influences other than SEEL, including more liberal hiring patterns regarding women throughout the country. One way to examine this possibility is to compare changes in the proportion of women administrators in Oregon with such changes in other states.

To make this comparison, data on the sex of employees in public schools were obtained from the state departments of education in four selected western states: Oregon, Washington, California, and Colorado. Colorado was chosen because it is similar to Oregon in demographic and geographic characteristics. Washington and California were chosen because they are neighboring states of Oregon and have a number of similar demographic characteristics and regional interests. Data on the representation of women and men in both teaching and administration were available for Colorado and Oregon from 1971-72 through 1978-79. Data on the representation of women and men in administrative posts were available for California from 1973-74 through 1978-79 and for Washington from 1973-74 through 1976-77. Thus, two separate analyses are conducted below--one with all four states, and one with just Colorado and Oregon. The first compares women's representation in administration in Oregon with their representation in other states from 1973-74 through 1978-79. The second examines changes in sex segregation in the education profession as a whole, by comparing the proportion of men and women in teaching and administration in Oregon and Colorado from 1971-72 through 1978-79. For the sake of simplicity, in this chapter the data for the comparison states and for the various administrative positions are grouped; for additional analyses using the disaggregated data, please see the appendix.

In general, the results reported below suggest that there is no immediate evidence that the advances in hiring in Oregon were significantly different from those in other states, at least when data from the 1970s are considered. Although subsequent data--from the years after SEEL has ceased its operation and OWEA has continued the activities--may lead to different conclusions, the analyses reported below suggest that, at the time of this writing, there has been no change in the hiring of women administrators in Oregon that cannot also be found to some, if not a greater, extent in other states.

The Hiring of Women in Administration

If SEEL did have an impact on the hiring of administrators in Oregon, one would expect the increased representation of women administrators in Oregon over the years of the SEEL Project to have been greater than that in the other states. Table 6-1 shows the proportion of women in administration in Oregon and the other states from 1973-74 through 1978-79. During those years,

TABLE 6-1

FEMALE EMPLOYEES IN PUBLIC SCHOOL ADMINISTRATION IN OREGON
AND THREE OTHER WESTERN STATES, 1973-74 TO 1978-79

Year	Oregon (%)	Other States (%)
1973-74	11.4	13.3
1974-75	13.4	12.6
1975-76	12.9	13.4
1976-77	13.1	16.2
1977-78	13.8	19.1
1978-79	15.2	20.4

NOTE: Administrative positions include superintendent, assistant superintendent, principal, assistant principal and vice-principal, director, supervisor, coordinator, and consultant.

Data for 1973-74 through 1976-77 are from Washington, California, and Colorado. Data for 1977-78 and 1978-79 are from California and Colorado only.

the proportion of female administrators rose in both Oregon and the other states, yet the increase in the other states appears to have been larger than that in Oregon.

The results of the log-linear analysis confirm this interpretation (see the appendix for a complete report of this analysis). Only a model showing a three-way interaction among sex of employee, year, and state fits the data. This indicates that the relative representation of women in administration in Oregon and the other states varied from one year to another. If SEEL did have an effect, the standardized-effect parameters for women in Oregon in this three-way interaction would have been highest in the years after the SEEL Project began, i.e., in 1977-78 and 1978-79. However, as Table 6-2 shows, that was not the case. Instead, from 1976-77 through 1978-79, the representation of women in Oregon was lower than expected in comparison to the other states. The standardized-effect parameters are significantly different from zero for 1977-78 and 1978-79, the two years when SEEL would logically have had an effect. This indicates that at the end of the SEEL Project, women administrators were more often hired in other states than in Oregon.

TABLE 6-2

STANDARDIZED-EFFECT PARAMETERS FOR THE THREE-WAY INTERACTION OF YEAR, SEX, AND STATE IN THE MODEL FITTING THE DATA ON WOMEN IN ADMINISTRATION, OREGON AND THREE OTHER WESTERN STATES, 1973-74 THROUGH 1978-79

Year	Women in Oregon
1973-74	0.30
1974-75	4.45
1975-76	2.40
1976-77	-1.02
1977-78	-3.42
1978-79	-3.09

NOTE: Standardized-effect parameters for the cells representing women in other states and men in Oregon are the negative of those representing women in Oregon. Standardized-effect parameters for men in other states are equal to those for women in Oregon.

Sex Segregation in Education

Although women's representation in administration may have changed less in Oregon than in the other states, SEEL may have influenced the nature of sex segregation within the education profession as a whole. To test this possibility, changes in the proportional representation of the sexes in teaching and administration were examined in Oregon and Colorado. Table 6-3 gives the percentage of women in administration and teaching in Oregon and Colorado from 1971-72 through 1978-79. If SEEL did have an effect, one would expect a change away from patterns of sex segregation (fewer women in teaching and more women in administration) to have been greater over the years in Oregon than in Colorado. Inspection of the figures in Table 6-3, however, suggests that the states differed little in their patterns of change in sex segregation over the years.

TABLE 6-3

FEMALE EMPLOYEES IN ADMINISTRATION AND TEACHING, OREGON AND COLORADO PUBLIC SCHOOLS, 1971-72 THROUGH 1978-79

	OREGON		COLORADO	
Year	Administrators (%)	Teachers (%)	Administrators (%)	Teachers (%)
1971-72	12.1	59.7	13.1	63.6
1972-73	11.5	58.8	11.6	63.0
1973-74	11.4	58.0	13.5	62.3
1974-75	13.4	57.9	13.7	62.3
1975-76	12.9	57.6	15.1	61.3
1976-77	13.1	57.4	16.0	61.3
1977-78	13.8	57.6	15.8	61.0
1978-79	15.2	57.9	16.2	61.2

NOTE: Administrative positions include superintendent, assistant superintendent, principal, assistant principal and vice-principal, director, supervisor, coordinator, and consultant. Librarians, counselors, and others are not included in the analysis.

The results of the log-linear analysis confirm this conclusion. The model that best fits the data is that of three three-way interactions: (a) among year, assignment, and sex; (b) among year, assignment, and state; and (c) among year, state, and sex. Table 6-4 gives the standardized-effect parameters for these three-way interactions. The interaction of year, assignment,

TABLE 6-4

STANDARDIZED-EFFECT PARAMETERS FOR THE THREE-WAY INTERACTIONS IN THE MODEL FITTING THE DATA OF THE REPRESENTATION OF WOMEN AND MEN IN TEACHING AND ADMINISTRATION, OREGON AND COLORADO, 1971-72 TO 1978-79

	INTERACTION OF YEAR, ASSIGNMENT, AND SEX	INTERACTION OF YEAR, ASSIGNMENT, AND STATE	INTERACTION OF YEAR, STATE, AND SEX
Year	Women Administrators*	Administrators in Oregon†	Women in Oregon‡
1971-72	-3.49	-0.81	-0.06
1972-73	-4.67	1.34	-0.18
1973-74	-2.37	1.66	-0.48
1974-75	-0.17	0.96	-0.35
1975-76	1.39	-1.37	0.16
1976-77	2.77	2.77	-0.17
1977-78	3.27	3.27	0.46
1978-79	4.93	4.93	0.75

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*Standardized-effect parameters for men teachers equal those for women administrators. Those for women teachers and men administrators are the negative of those for women administrators.

†Standardized-effect parameters for teachers in Colorado equal those for administrators in Oregon. Those for administrators in Colorado and teachers in Oregon are the negative of those for administrators in Oregon.

‡Standardized-effect parameters for men in Colorado equal those for women in Oregon. Those for men in Oregon and women in Colorado are the negative of those for women in Oregon.

and sex shows that the sex segregation in the education profession for the two states combined tended to lessen somewhat over the span of years. The other three-way interactions show no effects significantly different from zero. This indicates that the tendency for the relative representation of administrative and teaching positions in Oregon and Colorado to vary from one year to the next was not large, and that for both kinds of positions the representation of women did not differ significantly from one state to the other.

The Representation of Women in Graduate Programs of Educational Administration

In summer 1979, a short questionnaire was sent to all departments of educational administration listed in the College Bluebook for Oregon, California, Washington, Idaho, and Colorado.[4] The questionnaire requested information about the number of women and men enrolled in each level of the school's educational administration program from 1974-75 through 1978-79, and it asked if any of a variety of recruitment strategies had been employed by the department to attract women students. (Copies of the schedule and the accompanying letter, as well as a full description of the sample, raw data, and results of the log-linear analysis are in the appendix.)

Table 6-5 reports the representation of women in educational administration programs in Oregon and the other states. To simplify the discussion, students in credential, master's, and doctor's programs in states other than Oregon are grouped together in this analysis; please see the appendix for a discussion of differences by level and by state. Oregon and the other states all reported an increased representation of women students over the period studied. The other states had a larger contingent of women in 1974-75 than Oregon did and by the end of the time period were close to having an equal representation of women and men. As noted in Chapter 4, the proportion of women in educational administration programs in Oregon also increased, and in fact almost doubled, over the time period. The largest jump occurred from 1977-78 to 1978-79, involving students in the credential or certification program. Nevertheless, the proportion of women students in Oregon in 1978-79 was much less than that in the other states.

The log-linear analysis shows that the model of three two-way interactions (year by sex, state by sex, and state by year) marginally fits the data ($p = .09$). The standardized-effect parameters for this model (see the appendix) indicate that the representation of women increased over the years, that the changes in numbers of students over the years varied from Oregon to the other states, and that the other states had more women students than Oregon did. This model indicates no changes in Oregon that did not occur in other states.

TABLE 6-5

WOMEN IN GRADUATE PROGRAMS OF EDUCATIONAL ADMINISTRATION, OREGON AND FOUR OTHER WESTERN STATES, 1974-75 THROUGH 1978-79

	1974-75	1975-76	1976-77	1977-78	1978-79
Oregon*					
Percent of Women	12.4	15.1	16.3	18.1	24.4
Total N	201	324	416	689	781
Other States†					
Percent of Women	37.3	37.6	41.0	46.6	45.5
Total N	616	633	768	697	617

NOTE: Data for students in certification, master's, and doctor's programs are combined.

*See Table 4-1 for a description of data for Oregon.

†Includes Colorado, California, Washington, and Idaho.

Yet because the fit of this model is only marginal, the standardized-effect parameters of the fully fitted model of the three-way interaction among all the variables should also be examined. Table 6-6 on the following page gives the standardized-effect parameters for the three-way interaction in this model (see the appendix for a full discussion). The effects for this model indicate that the increase of women students in Oregon during the final year of the SEEL Project was significantly larger than would be expected by chance in comparison to the other states. Table 6-5 shows that from 1977-78 to 1978-79, the number of women students in Oregon increased markedly, while it declined slightly in the other states. It must be noted, however, that during those years less than one-fourth of the students in Oregon were women, whereas close to one-half of the students in the other states were women.

Four of the twelve schools outside Oregon reported having made formal or informal efforts to recruit students. The strategies cited included visits of recruiters to meetings of educators, advertisements in publications, recruitment in classes, and personal contacts. While one school was unsure of the results and another reported that those contacted had already begun

TABLE 6-6

STANDARDIZED-EFFECT PARAMETERS FOR THE THREE-WAY INTERACTIONS IN THE FULLY FITTED MODEL FOR DATA ON WOMEN IN GRADUATE PROGRAMS OF EDUCATIONAL ADMINISTRATION, OREGON AND FOUR OTHER WESTERN STATES, 1974-75 THROUGH 1978-79

Year	Women in Oregon*
1974-75	-0.96
1975-76	0.19
1976-77	-0.15
1977-78	-1.01
1978-79	2.58

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*Standardized-effect parameters for men in other states are equal to those for women in Oregon. Standardized-effect parameters for women in other states and for men in Oregon are the negative of those for women in Oregon.

initial steps toward gaining certification, a third school reported that its results were "good." One respondent noted that while recruiting had generally been on a personal and informal basis, the growth in women's representation in recent years had been "phenomenal." In general, these results appear to indicate a growing interest, at least among women in these western states, in careers in educational administration.

The Representation of Women at Administrators' Conventions

As Chapter 4 noted, the proportion of women in the program of the meetings of the state administrators' organization increased significantly from 1976 to 1979. This final comparative analysis seeks to determine if that increase was unique to Oregon or represents part of a national trend. To accomplish this, the programs from the annual spring convention of the national organization of administrators were analyzed in a manner similar to that used with the state group. The number of women listed in the program index for each year of the national convention was counted and compared with the total number of participants. Table 6-7 gives the percentage of women listed each year in both the state group and the national group. Inspection of this table indicates that the increase noted in Oregon was not found in the national organization.

The log-linear analysis, however, does not support that conclusion. The simplest model fitting the data has two two-way interactions: (a) between organization and sex and (b) between year and sex. The standardized-effect parameters show that women were much more likely to be on the program in Oregon than at the national meetings and that women's representation grew over the years, peaking in 1978. The differences between the Oregon group and the national group were not so extensive that chance could be ruled out as their cause. This result may well have occurred only because of the small size of the Oregon meetings in comparison to the size of the national meetings. Certainly the rise in women's representation in Oregon, from less than one-fifth to close to one-third of the program participants in only two years (see Table 6-7), is a change that is substantively important, especially when the lack of such an increase in the national meetings is noted.[5]

TABLE 6-7

WOMEN IN THE PROGRAMS OF ANNUAL MEETINGS, OREGON STATE AND NATIONAL ORGANIZATION OF SCHOOL ADMINISTRATORS

	1976		1977		1978		1979	
Organization	% of Women	Total N	% of Women	Total N	% of Women	Total N	% of Women	Total N
Oregon	19	74	19	78	24	74	32	76
National	12	1,047	12	1,006	18	842	14	813

NOTE: Missing cases are omitted from the total figures given above. There are 7 Oregon cases missing (2.3 percent) and 54 national cases missing (1.4 percent).

Summary

At the end of the SEEL Project, more women in Oregon were enrolled in administrative training programs, were hired in administrative positions, and were represented in the programs of the annual meetings of administrators than was the case before SEEL began. Yet data from other states indicate that the increased hiring of women and the increased representation of women in graduate programs has occurred elsewhere, too, and at times with even greater magnitude. Thus, it cannot be said, at the time of this writing, that SEEL caused the increases in the hiring and enrollment of women in graduate programs in Oregon; instead, those changes may have resulted from influences found in other western states as well.

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In contrast, the increased representation of women that was seen in Oregon in the programs of the state administrators' meetings was not found with the national group's meetings. If this increase in Oregon persists in later years, it may indicate a change in the attitudes of current administrators that will presage even greater changes in the state.

NOTES

1. For an expanded discussion of the concept of "legacy for change" and an application of the concept to the SEEL Project, see Kenneth M. Kempner, "A Conceptual Framework for the Evaluation of Planned Social Change," Ph.D. dissertation, University of Oregon, 1979.

2. At the end of the project, people in Oregon and neighboring states planned to submit a proposal for the funding of several of OWEA's activities. The first possible funding date, however, would have been fall 1980. The group was funded and an active organization, based at CEPM, has operated in the northwest since that time.

3. For an explanation of this analytic technique, see Leo A. Goodman, Analyzing Qualitative/Categorical Data (Cambridge, Mass.: Abt Books, 1978).

4. The College Bluebook: Degrees Offered by College and Subject, 16th ed., vol. 3 (New York: Macmillan, 1977).

5. The president-elect, 1982-83, of Oregon's organization of administrators is a woman. This may well indicate a continuing liberalization of attitudes toward women administrators in the state.

CHAPTER 7

A MODEL FOR CHANGING SEX INEQUITIES IN EDUCATIONAL LEADERSHIP

From the foregoing analysis and evaluation of the work of the SEEL Project, it is possible to develop recommendations for others interested in promoting change. The previous chapters have noted that SEEL was generally more successful in its activities to build individual awareness than in its attempts to alter organizational practices and to work with existing organizations. Some of the changes noted in Oregon over the three years of the SEEL Project in the recruitment of women students to educational administration programs and in the hiring of women administrators can be found in other states similar to Oregon. However, some legacy may have been left by the SEEL Project that will help produce further changes in the years to come. This includes the many products generated by the project over the years, the group of women administrators that will continue several of SEEL's activities, and the apparent change in the sex composition of participants in the statewide meetings of administrators.

In the previous chapters, several reasons have been posited for why certain activities succeeded and others failed. These include the setting of the project, the particular skills and views of staff members, the interactions and decisions made by the SEEL staff over the years, and a relatively liberal climate toward women pursuing less traditional roles. In this chapter, that analysis is used to develop recommendations for other groups concerned with promoting change in the sex segregation of administrative positions. These recommendations are made with the realization that few groups will have the extensive financial resources of the SEEL Project and with the realization that no two settings will be identical. Presented first are activities and projects other groups might want to pursue. Discussed next are what a project in another state or region might look like and some suggestions regarding the setting and staff. Finally, some ways are explored by which other projects might build on existing momentum to promote change most effectively.

ACTIVITIES AND PROJECTS

In its three years of existence, the SEEL Project tended to focus more on some activities than on others. As noted in earlier chapters, these decisions were generally prompted by variables such as the skills and previous experience of the staff, their ideological beliefs, the nature of the project's setting, the people whom the staff knew, and the total energy and time available to complete the activities. Yet whatever the final choices made by the SEEL staff on the activities to be pursued, other projects would probably want to investigate the worth of changes in each of the areas originally proposed by SEEL.

In attempting to change individuals' attitudes, other projects would not need to develop materials such as those SEEL produced, but could use these and others available from the WEEA Publishing Center. Care should be taken to match the materials used with the intended target groups. Other projects would probably also want to identify and systematically contact all elements of their target population, giving special attention to those with whom they have had no previous contact. In these efforts, developing a liaison with state or areawide educational organizations such as general assistance centers, state departments of education, and groups of affirmative action officials would be helpful.

The recruitment of individuals and the attempts to alter the attitudes of gatekeepers are also potentially important efforts. Again, a clear definition of the target groups should be made. SEEL's products that describe the problems of sex inequity and the need for more women administrators could be used in contacts with these people.

Social psychologists have long known that attempts to change behavior through altering individuals' attitudes are a notoriously inefficient use of efforts.[1] Thus, it is recommended that other groups seriously consider devoting attention to changes in organizations. SEEL's experience in Oregon shows that certification requirements for teachers and administrators can be altered, especially when the efforts of legislators are used in changing state laws. Perhaps a group that has more formal ties with academic training programs than the SEEL Project had could make changes in college curricula. Changing recruitment policies is an activity that may help attract more women to educational administration. Some of the schools in other states that provided data for the comparative analysis in Chapter 6 used methods such as recruiting at meetings of teacher groups to attract potential women candidates, and when these practices are implemented as a regular part of a training program, they may indeed help to promote change. Even if change agents have no formal positions or ties with the organizations they wish to affect, change is still possible. For instance, pressure from students, community members, and/or practicing educators may be an effective means of altering the practices of training institutions.

Other groups could also explore the area of restructuring work. While no recommendations can be offered here for the route to be taken, there are many opportunities, including the investigation of greater teacher involvement in administrative decisions and greater sharing of roles between teachers and administrators, perhaps on a rotating basis. Such changes would alter the nature of educational work and would allow more people access to important decisions. These changes might also relieve some of the strain that both teachers and administrators experience in their current roles.

Attempts to document the nature of administrative vacancies, hirings, and candidates are a way to intervene directly in the hiring process, the eventual aim of a project such as SEEL. As noted in earlier chapters, other groups could carry out this process at a much lower cost than SEEL's, by using available lists of vacancies and volunteers to gather information. While SEEL did not use the data gathered from the Oregon Network in a political manner, because of the nature of SEEL's funding, other groups could consider using the information gathered to commend those districts which have made a significant move toward greater sex equity. Such positive reinforcement could be important to spur continued efforts in the future. The information could also be used by activists in reaching decisions about where to apply greater pressure in the future to attain equity, as well as to publicize situations in which affirmative action guidelines have been neglected.

Finally, other groups would almost certainly want to consider ways to build the capacity for continued change. Even though SEEL's advisory board of prominent educators did provide helpful advice, the group was so busy that it could not give the commitment of time and effort necessary for continuing SEEL's activities. On the other hand, the most successful work with organizations was probably the establishment of OWEA. Such an organization of active women administrators and aspirants does appear to have the potential to continue change, so long as the members are both dedicated and enthusiastic (although because OWEA has not yet established formal ties with existing organizations, how certain OWEA's survival will be is at this point unclear). Besides developing support groups for women administrators and aspirants, other change agents could also consider forming affiliations or liaisons with existing organizations.

There are, of course, other strategies that could be used. Other WEEA-sponsored projects have supported women administrative interns in school districts, providing supervision and training so that the pool of experienced women candidates would be increased. As Chapter 5 noted, a major reason that hiring officials in Oregon gave for not hiring women was a lack of experience among those who applied. Further, in contrast to the men, many of the women listed in the Directory of Administrative Candidates lacked any administrative experience. Internship programs could help change this situation. It was calculated that SEEL's budget would have supported a three-year internship program for 14 women at an average stipend of $12,000 a year each.[2] However, because no long-range comparative follow-up of the WEEA projects is planned to see how the interns fared, there may be no way to assess the relative success of SEEL's efforts and that of the WEEA internship programs.

SETTING AND STAFF

While the comparative analysis in Chapter 6 has suggested that Oregon is not a particularly unique state in its changes toward greater equality for women in administration, other projects should probably consider the nature of their setting and staff as they plan their change attempts.

First, other projects should seriously consider locating themselves in a setting other than a university or a research institute. While SEEL's setting was generally supportive and comfortable, the academic atmosphere undoubtedly produced an overemphasis on the preparation of products and written reports, rather than a focus on direct attempts to alter organizations and hiring practices. The particular requirements of a project housed in a university setting also limited the extent of political action that SEEL could take or felt comfortable taking. A logical setting for a change project such as SEEL would be a state department of education or a regional educational service district that has many contacts with local school

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districts as well as some financial resources. While volunteer labor is certainly a feasible resource, it is probably important to have some institutional base for the essential requirements of clerical supplies, telephone lines, and a permanent address.

Another project would definitely want a staff possessing the dedication and enthusiasm that SEEL's staff had. Yet a staff that is not so academically oriented as SEEL's, and a staff that has greater contacts with local school districts and more official ties with training institutes than SEEL's staff had, might well be desirable. An ideal staff might include a major liaison person who has extensive connections and experience in local school districts and who is comfortable working with practicing administrators and teachers. Having a doctor's degree may, however, be a deterrent in this task, especially in states such as Oregon, in which few practicing educators have such advanced degrees. A skilled, dedicated secretary or administrative assistant could handle most of the work needed for such activities as the service portion of the Oregon Network and the newsletter. The part-time efforts of a person who has formal ties with administrative training institutes could help promote changes in those organizations. Volunteers could also play an important part in the work of a project such as SEEL. However, because people interested in this area often have other substantial time commitments, it would be important to have a central staff member serve as coordinator of volunteer activities. Finally, other groups wishing to pursue a wide variety of goals such as those proposed by the SEEL Project should consider having staff members who hold a range of ideological views, as well as instituting norms that encourage the pursuit of goals related both to changes in organizations or social conditions and to changes in individuals.[3]

BUILDING ON EXISTING MOMENTUM

From the analysis in Chapter 6, it is clear that states other than Oregon have the momentum for change. Groups in other states could utilize these beginnings in an effort to push for even greater change. The growth of women's participation in graduate programs in administration is a most important sign, as the pool of potential female applicants continues to grow. The women who thus participate could form a base for needed volunteer efforts and could also serve as watchdogs over the hiring practices of their own districts.

Other change projects could seriously consider developing and maintaining liaisons with existing organizations. The analysis in Chapters 4 and 6 has shown that existing administrative organizations can make some efforts to give greater representation and attention to women. That was especially true of the group in Oregon, which responded relatively quickly to pressure applied early in the history of the SEEL Project. In addition, legal requirements such as affirmative action and Title IX explicitly require that schools deal with problems of sex inequity. Other change projects could also seriously consider working with established organizations in efforts to promote change, not simply when their aid is expedient, but in an ongoing manner, to institute reforms in the organizations' general programs and activities.

Finally, projects in other states could choose to work actively with existing teacher groups, feminist organizations, and groups of minority educators. Since teachers provide the pool of educators from which administrators come, teacher groups are an important recruitment source. Feminist organizations can provide energy and organizational support, as well as political help, in pressuring school districts for greater change. And since both minorities and women gain when affirmative action regulations are enforced, groups of minority educators can be an effective source of collaboration.

NOTES

1. For a summary of this literature, see Kenneth M. Kempner, "A Social-Psychological Analysis of the Context for Change," in Jean Stockard et al., Sex Equity in Education (New York: Academic Press, 1980).

2. Kenneth M. Kempner, "A Conceptual Framework for the Evaluation of Planned Social Change," Ph.D. dissertation, University of Oregon, 1979.

3. For a discussion of the influence of ideology on the outcomes of the SEEL Project, see Rita Pougiales and Kenneth M. Kempner, "Evaluation of Ideology: A Case Study of Social Change," paper presented at the annual meeting of the American Educational Research Association, San Francisco, April 1979.

APPENDIX

AN EXTENDED REPORT OF THE COMPARATIVE ANALYSES

APPENDIX

Chapter 6 briefly describes the results of quantitative comparisons of the sex ratio in administrative jobs, in administrative training programs, and in convention programs in Oregon and in other states or the nation as a whole. This appendix presents the raw data and complete results for each of these analyses.

THE HIRING OF ADMINISTRATORS

Table 1 reports the number of men and women in various positions in education for the years 1971-72 through 1978-79 in four western states. Note that data for both teachers and administrators are available only for Oregon and Colorado; that data for the years 1971-72 and 1972-73 are available only for Oregon and Colorado; and that no data are available for any positions for Washington for the years 1977-78 or 1978-79.

TABLE 1

WOMEN AND MEN IN THE EDUCATION PROFESSION IN FOUR WESTERN STATES, 1971-1979

OREGON	Superintendent, Assistant Superintendent		Principal, Assistant Principal		Coordinator, Supervisor, Director		Teacher	
Year	Men	Women	Men	Women	Men	Women	Men	Women
1971-72	309	6	1,060	68	387	167	9,522	14,109
1972-73	305	5	1,096	70	449	166	9,757	13,927
1973-74	311	4	1,116	81	474	160	10,108	13,961
1974-75	317	6	1,164	82	470	214	10,318	14,202
1975-76	324	4	1,204	106	455	183	10,393	14,146
1976-77	326	5	1,204	120	457	175	10,581	14,236
1977-78	326	3	1,231	126	477	196	10,596	14,390
1978-79	334	5	1,231	137	498	227	10,766	14,831

(continued)

TABLE 1, continued

COLORADO

Year	Superintendent, Assistant Superintendent		Principal, Assistant Principal		Coordinator, Supervisor, Director		Teacher	
	Men	Women	Men	Women	Men	Women	Men	Women
1971-72	247	0	1,071	112	414	149	9,023	15,777
1972-73	262	1	1,065	74	395	152	9,522	16,180
1973-74	244	2	1,154	105	410	165	10,033	16,608
1974-75	250	5	1,196	117	473	182	10,381	17,132
1975-76	264	1	1,287	157	515	209	10,367	16,434
1976-77	265	3	1,300	172	507	222	10,655	16,887
1977-78	261	2	1,299	189	483	192	10,495	16,411
1978-79	255	5	1,304	183	476	206	10,522	16,572

CALIFORNIA

Year	Superintendent, Assistant Superintendent		Principal, Assistant Principal		Coordinator, Supervisor, Director	
	Men	Women	Men	Women	Men	Women
1973-74	1,567	31	7,554	1,426	2,070	551
1974-75	1,612	36	7,970	1,216	2,238	657
1975-76	1,561	42	7,898	1,283	2,203	671
1976-77	1,578	48	7,555	1,634	2,292	821
1977-78	1,593	44	7,523	1,830	2,352	927
1978-79	1,581	50	7,242	1,913	2,149	985

(continued)

TABLE 1, continued

WASHINGTON

Year	Superintendent, Assistant Superintendent		Principal, Assistant Principal		Coordinator, Supervisor, Director	
	Men	Women	Men	Women	Men	Women
1973-74	365	2	1,743	60	396	29
1974-75	393	2	1,773	86	419	42
1975-76	370	3	1,753	94	402	54
1976-77	359	4	1,752	127	301	71

SOURCE: State Departments of Education in Oregon, Colorado, California, and Washington.

The Hiring of Administrators in Four Western States

The analysis of data for all four states reported in Chapter 6 does not differentiate among types of administrative positions; further, Chapter 5's analysis groups the data for California, Colorado, and Washington. Presented below are first the complete results of that analysis, and then the results of an analysis of the unaggregated data.

Analysis of the Aggregated Data

Table 2 summarizes the results of testing each possible model of interaction among these variables: sex of employee, year of employment, and state of residence. The information statistic is a chi-square-like statistic that is used to determine how well the data fit each model. This use of chi-square, however, is unlike the traditional use of chi-square in simple contingency tables, when one wishes to reject the null hypothesis (or model) of independence between two variables. Instead, with log-linear analysis, one wishes to fail to reject the null hypothesis by finding the model that best describes the interactions among the variables. Here, the fully fitted model of a three-way interaction fits the data, indicating that the relative number of women and men in administration varied, from one year to another, and from Oregon to the other states, during the years under consideration.

TABLE 2

SUMMARY OF FIT OF MODELS APPLIED TO DATA ON THE REPRESENTATION OF WOMEN IN ADMINISTRATIVE POSITIONS, OREGON AND OTHER STATES

Model	Information Statistic	Df	Probability Level
1. Year, State, Sex	872.687	16	0.00
2. Year by State, Year by Sex, State by Sex	39.343	5	0.00
3. Year by State, Year by Sex	103.797	6	0.00
4. Year by State, State by Sex	723.528	10	0.00
5. Year by Sex, State by Sex	145.694	10	0.00
6. Year by State, Sex	777.099	11	0.00
7. Year by Sex, State	199.306	11	0.00
8. State by Sex, Year	818.955	15	0.00
9. Year by State by Sex	0.000	0	-1.00

NOTE: Data for California, Colorado, and Washington are aggregated for this analysis.

If SEEL did bring about greater sex equity in Oregon, one would expect, in such a three-way interaction, the standardized-effect parameters to have been highest for women in Oregon after 1976-77. As noted in Chapter 6, that was not the case. Table 3 gives all the standardized-effect parameters for the fitted model. The zero-order effects indicate that over time the number of administrators in the public schools grew, that there were many more men than women in administration, and that Oregon had fewer administrators than the three other states together. Only the two-way interactions between year and sex and between state and sex had any number of large standardized-effect parameters; they indicate that the number of women administrators grew over the years and that Oregon had relatively fewer women administrators and more men administrators than the other states. Finally, the standardized-effect parameters in the three-way interaction indicate that the increase of women administrators was higher in states other than Oregon in the later years of the SEEL Project.

TABLE 3

STANDARDIZED-EFFECT PARAMETERS FOR INTERACTIONS IN MODEL 9, TABLE 2

	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79	Total
Year by State							
Oregon	-2.02	1.10	-0.23	-3.04	1.10	3.50	-159.18
Other states	2.02	-1.10	0.23	3.04	-1.10	-3.50	159.18
Total	-6.01	-1.85	-0.97	2.68	2.11	4.92	
Year by Sex							
Men	5.61	4.01	3.52	-0.62	-4.97	-8.76	133.93
Women	-5.61	-4.01	-3.52	0.62	4.97	8.76	-133.93
State by Sex	Oregon			Other States			
Men	7.16			-7.16			
Women	-7.16			7.16			
	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79	
Year by State by Sex*							
Women in Oregon	0.30	4.45	2.40	-1.02	-3.42	-3.09	

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*The standardized-effect parameters for men in other states equal those for women in Oregon. Those for women in other states and men in Oregon are the negative of those for women in Oregon.

Analysis of the Unaggregated Data

The four variables to be examined here are the state, the type of assignment held, the sex of the employee, and the year of employment. Because a four-variable analysis is more complex than a three-variable analysis, the former is discussed more thoroughly here. To minimize problems resulting from different titles being used in the various states, the positions were collapsed into the categories of (a) superintendents and assistant superintendents; (b) principals and assistant principals; and (c) directors, supervisors, and coordinators. One could expect that some states had more employees than others, and that there were probably more females than males overall in education, but more males than females in administration. One could also expect that there were variations in the numbers of people in each position, with fewer superintendents than principals. Finally, with the changes in population from one year to the next, one could well expect that there were changes in the number of employees from one year to the next.

Beyond these expected variations in the univariate distributions, at least one bivariate association would clearly be expected, given earlier studies: sex by assignment, with men more often in the more highly paid position of superintendent. The two-way interaction of sex with year would hold if a pattern of increasing female representation in administration were found in all states combined. Particular variations in the states' populations or in their structure of administration may also have influenced interactions between (a) assignment and year and (b) assignment and state.

Four three-way interactions among the variables are possible: (a) sex by year by assignment, (b) sex by year by state, (c) sex by assignment by state, and (d) year by assignment by state. First, a three-way interaction among sex, year, and assignment could indicate that the extent of sex segregation in administration in all the states, taken as a whole, varied from one year to the next. Second, a three-way interaction among sex, year, and state could indicate that the differences from state to state varied in the representation of women from one year to the next. Third, the three-way interaction among sex, assignment, and state would indicate that, over all the years, the sex segregation in administration differed from one state to another. Finally, the three-way interaction among year, assignment, and state would indicate that the relative representation of each administrative position in each state varied from one year to the next, probably as a result of unique or unusual demographic characteristics in one or more states. For the purposes of determining whether or not SEEL had a special impact on changes in Oregon, only the second and third of these three-way interactions would be important. If a model with these interactions held and the effect parameters indicated that Oregon was indeed ahead of the others in lessening sex segregation or increasing the participation of women, it would lend credence to the idea that SEEL did affect hiring patterns.

The presence of a four-way interaction among all the variables in the model would indicate that the patterns of sex segregation in administrative positions varied from one state to another and from one year to another. If only this model held and an examination of the effect parameters indicated that Oregon had its most marked move toward more even representation of the sexes after the SEEL Project had begun, this would also support the view that SEEL did affect the state's hiring patterns. The models are hierarchical; thus, if a model with only three-way interactions fits the data, single-variable and two-way interactions also hold, even though they cannot fully describe the interactions.

Table 4 summarizes the testing of each of the models described above with the data on the sex of occupants of administrative positions from the four states from 1973-74 through 1977-78.[1] Only the third model in the list, which

TABLE 4

SUMMARY OF FIT OF SELECTED MODELS TO DATA ON SEX SEGREGATION IN ADMINISTRATIVE POSITIONS IN OREGON, COLORADO, CALIFORNIA, AND WASHINGTON, 1973-74 THROUGH 1977-78

Model		X^2	Df	P
1.	Year, position, state, sex	6820.691	103	0.0000
2.	Year-position, year-sex, year-state, position-sex, position-state, sex-state	503.999	69	0.0000
3.	Year-position-sex, year-position-state, year-sex-state, position-sex-state	27.205	23	0.2473
4.	Year-position-state, year-sex-state, position-sex-state	51.095	31	0.0130
5.	Year-position-sex, year-sex-state, position-sex-state	62.678	44	0.0334
6.	Year-position-sex, year-position-state, position-sex-state	70.710	33	0.0001
7.	Year-position-sex, year-position-state, year-sex-state	386.342	29	0.0000
8.	Year-position-sex, year-position-state, sex-state	437.400	39	0.0000
9.	Year-position-sex, position-sex-state, year-state	113.532	55	0.0000
10.	Year-position-sex, year-sex-state, position-sex	415.967	50	0.0000
11.	Position-sex-state, year-sex-state, year-position	86.168	52	0.0021
12.	Year-position-sex, year-state, position-state, sex-state	471.044	61	0.0000
13.	Year-sex-state, year-position, position-sex, position-state	444.624	58	0.0000
14.	Position-sex-state, year-position, year-sex, year-state	145.671	63	0.0000
15.	Year-position-sex-state	0.000	0	-1.0000

includes all possible three-way interactions, fits the data. Table 5 gives the standardized-effect parameters for Model 3. Because the models are hierarchical, the marginal, two-way, and three-way interactions are all described in the table.

The zero-order or marginal effects show the variations expected. There were fluctuations in the numbers of administrators reported from one year to the next, with the largest number occurring in 1976-77 and the smallest number occurring in the last reported year of 1977-78. Principals and assistant principals were the administrators listed the most commonly; directors, supervisors, and coordinators were the next most commonly listed; and superintendents and assistant superintendents, as expected, were the least commonly listed. Male administrators were much more common than female administrators, and California reported having many more administrators than all of the other states, with Oregon, Colorado, and Washington having fewer.[2]

Among the two-way interactions, all but the one between year and assignment show at least some significant effects, although the large effects for the interaction between year and state probably also result from the missing data for 1977-78 for the state of Washington. In general, these interactions suggest that the representation of women increased slightly over the years studied; that the expected sex segregation in administrative assignments did exist; that California tended to have more women administrators than the other states did; that California was less likely than the other states were to designate people as coordinators, directors, or supervisors; and that Colorado had fewer superintendents than the other states had. The last finding probably results from regional variations in the classification of administrators and in the size of districts.

Because the model with only two-way interactions did not hold, it is necessary to examine the effects with each of the three-way interactions. The effects associated with the three-way interaction among sex, year, and assignment are all relatively small, indicating that while there was some variation in the extent of sex segregation in each position from one year to the next, these differences were generally not significantly different from zero. Similarly, none of the standardized effects in the three-way interaction among year, assignment, and state is large, indicating that changes in the relative representation of each administrative assignment in each state did not vary much from one year to the next.

The two remaining three-way interactions--among year, sex, and state; and among assignment, sex, and state--are most important for determining if SEEL had a unique and important effect on administrative hiring in Oregon. Some significant effects are found with each of these interactions, but they do not support the view that Oregon moved toward more equitable hiring practices faster than the other states did. The interaction among year, sex, and state (Table 5) indicates that the representation of women in administration varied from one state to another and from one year to the next. If Oregon did have a more equitable hiring practice, one could expect, in the later years of the sample, the representation of women in Oregon to have been much greater than that in the other states, even though little difference may have existed among the states in the early years.

TABLE 5

STANDARDIZED-EFFECT PARAMETERS FOR THE INTERACTIONS IN MODEL 3, TABLE 4

TWO-WAY INTERACTIONS	1973-74	1974-75	1975-76	1976-77	1977-78	Total
Year by Sex						
Women	-3.011	-1.645	-0.972	0.286	1.891	-27.224
Year by Assignment						
Superintendent and assistant superintendent	-0.488	0.110	-0.034	-0.180	0.224	-17.493
Principal and assistant principal	1.242	-0.238	0.366	0.920	-0.747	18.574
Director, supervisor, coordinator	-0.424	0.059	-0.316	-0.635	0.428	8.394
Year by State						
Oregon	-2.860	-3.270	-3.860	-4.554	6.338	-1.800
Colorado	-2.829	-3.481	-2.747	-3.121	6.100	-2.891
California	-3.436	-5.119	-5.849	-5.244	6.918	37.694
Washington	4.799	6.006	6.082	6.462	-6.860	-11.527

	Superintendent, Assistant Superintendent	Principal, Assistant Principal	Director, Supervisor, Coordinator, Assistant
Sex by Assignment			
Women	-10.509	3.333	13.068
Assignment by State			
Oregon	0.376	-3.546	3.015
Colorado	-3.121	0.902	4.380
California	0.776	3.056	-4.349
Washington	1.034	-0.072	-1.510

(continued)

TABLE 5, continued

	Oregon	Colorado	California	Washington
Sex by State				
Women	-0.301	-0.693	3.882	-0.962
THREE-WAY INTERACTIONS				
Year by Sex by State				
1973-74: Women	1.110	1.094	2.000	-2.136
1974-75: Women	1.500	0.688	0.624	-1.474
1975-76: Women	1.009	0.909	0.327	-1.217
1976-77: Women	0.194	0.444	0.869	-0.730
1977-78: Women	-1.687	-1.594	1.393	1.662
Assignment by Sex by State				
Superintendent and assistant superintendent				
Women	0.109	-1.800	1.423	0.285
Principal and assistant principal				
Women	-2.072	0.749	1.180	0.078
Director, supervisor, coordinator, assistant				
Women	1.942	2.294	-3.450	-0.518

(continued)

TABLE 5, continued

	Oregon	Colorado	California	Washington
Year by Assignment by State				
Superintendent and assistant superintendent				
1973-74	0.086	0.271	0.383	-0.395
1974-75	0.146	0.196	0.231	-0.308
1975-76	0.337	0.118	0.239	-0.360
1976-77	0.339	0.085	0.258	-0.351
1977-78	-0.411	-0.367	-0.417	0.429
Principal and assistant principal				
1973-74	-0.901	-0.492	-0.285	0.869
1974-75	-0.731	-0.573	-0.315	0.817
1975-76	-0.439	-0.651	-0.557	0.801
1976-77	-0.416	-0.617	-1.218	1.032
1977-78	1.022	1.055	0.774	-0.998
Director, supervisor, coordinator, assistant				
1973-74	0.759	-0.005	-0.366	-0.239
1974-75	0.490	0.222	-0.068	-0.344
1975-76	-0.140	0.442	0.165	-0.247
1976-77	-0.169	0.467	0.802	-0.499
1977-78	-0.412	-0.502	-0.160	0.380

(continued)

TABLE 5, continued

Sex by Year by Assignment	Superintendent, Assistant Superintendent	Principal, Assistant Principal	Director, Supervisor, Coordinator, Assistant
1973-74: Women	-0.311	0.635	-0.113
1974-75: Women	0.369	-0.822	0.221
1975-76: Women	0.347	-0.558	-0.008
1976-77: Women	0.134	-0.003	-0.218
1977-78: Women	-0.174	0.220	0.039

NOTE: The parameters for men are not included because they are the inverse of those for women.

In actuality, while Oregon did have slightly more women relative to the other states in 1974-75 and 1975-76, it had lost this position by 1976-77 and had the lowest standardized-effect parameter for women in 1977-78, the first year in which SEEL (although not the Oregon Network) would logically have had an effect.

The three-way interaction among sex, assignment, and state (Table 5) indicates that, over all the years, the sex segregation in administrative positions differed from one state to another. Here, if SEEL did have a unique effect in Oregon, one could expect the sex segregation in Oregon to have been less than that in other states. Yet in both the principal and director/coordinator/supervisor slots, the extent of sex segregation in Oregon was the most extreme, with women overrepresented in coordinator positions and underrepresented in principal positions. The extent of sex segregation in superintendent posts for Oregon is close to that for the total group.

The Comparison of Colorado and Oregon, 1971-72 through 1978-79

The analysis reported above has the potential drawbacks that it (a) included only administrative positions and (b) did not also look at women's representation in teaching. The data from Colorado and Oregon meet these criteria, and a log-linear analysis was repeated with them. The analysis with the aggregated data on administrative positions, as described in Chapter 6, is reported first below. Then the analysis of the unaggregated data follows.

Analysis of the Aggregated Data

Table 6 summarizes the testing of various models with the aggregated data. The simplest model that holds is Model 4, which has three three-way interactions: (a) year by assignment by sex, (b) year by assignment by state, and (c) year by state by sex. The model that has two-way interactions does not hold, and no simpler model of three-way interactions fits the data.

TABLE 6

SUMMARY OF FIT OF MODELS APPLIED TO DATA ON WOMEN AND MEN IN TEACHING AND ADMINISTRATION IN OREGON AND COLORADO, 1971-1972 TO 1978-79

Model	Information Statistics	Df	Probability
1. Year, assignment, state, sex	31,554.59	53	0.00
2. Year by assignment, year by state, year by sex, assignment by state, assignment by sex, state by sex	109.822	29	0.00
3. Year by assignment by sex, year by assignment by state, year by state by sex, assignment by state by sex	5.816	7	0.56
4. Year by assignment by sex, year by assignment by state, year by state by sex	7.653	8	0.46
5. Year by assignment by sex, year by state by sex, assignment by state by sex	23.73	14	0.05
6. Year by assignment by state, year by state by sex, assignment by state by sex	79.73	14	0.00
7. Year by assignment by sex, year by assignment by state	667.245	16	0.00
8. Year by assignment by sex, year by state by sex	25.579	16	0.06
9. Year by assignment by sex, assignment by state by sex	85.004	28	0.00
10. Year by assignment by state, year by state by sex	30,518.07	16	0.00
11. Year by assignment by state, assignment by state by sex	166.156	28	0.00
12. Year by state by sex, assignment by state by sex	153.454	28	0.00
13. Year by state by sex by assignment	0.000	0	1.00

The standardized-effect parameters for Model 4 are given in Table 7. When other variables in the model are taken into account, the zero-order effects indicate that there was a relative increase in the number of educators over the years; that there were many more teachers than administrators; that Colorado had slightly more educators than Oregon did; and that, when the variable of assignment is taken into account, there were more men than women in education. The two-way interactions indicate that there were relatively more administrators in the later years for which data are available, and that in these later years there were also relatively more women. Colorado tended to have relatively more women educators and, as would be expected, sex segregation in the profession was strong in the two states in which men much more often than women were in administration. Of the three-way interactions, only that among year, assignment, and sex has standardized-effect parameters of any magnitude; as noted in Chapter 6, these indicate that there was no tendency for Oregon to have less sex segregation than Colorado in the later years of the project.

TABLE 7

STANDARDIZED-EFFECT PARAMETERS FOR MODEL 4, TABLE 6

TWO-WAY AND ZERO-ORDER EFFECTS

Year by Assignment	Administration	Teaching	Total
1971-72	-3.69	3.69	-9.01
1972-73	-5.58	5.58	-8.81
1973-74	-4.45	4.45	-5.20
1974-75	-0.70	0.70	0.97
1975-76	2.92	-2.92	3.66
1976-77	3.32	-3.32	6.04
1977-78	4.41	-4.41	6.37
1978-79	5.88	-5.88	9.41
Total	-351.45	351.45	

(continued)

TABLE 7, continued

Year by State

	Oregon	Colorado
1971-72	0.88	-0.88
1972-73	1.52	-1.52
1973-74	0.97	-0.97
1974-75	-0.47	0.47
1975-76	-1.66	1.66
1976-77	-2.39	2.39
1977-78	-0.27	0.27
1978-79	1.04	-1.04
Total	-8.06	8.06

Year by Sex

	Male	Female
1971-72	0.51	-0.51
1972-73	3.19	-3.19
1973-74	2.16	-2.16
1974-75	0.10	-0.10
1975-76	-0.19	0.19
1976-77	-1.26	1.26
1977-78	-1.65	1.65
1978-79	-3.82	3.82
Total	90.64	-90.64

Assignment by State

	Oregon	Colorado
Administration	0.44	-0.44
Teaching	-0.44	0.44

Assignment by Sex

	Male	Female
Administration	142.02	-142.02
Teaching	-142.02	142.02

State by Sex

	Male	Female
Oregon	10.07	-10.07
Colorado	-10.07	10.07

(continued)

TABLE 7, continued

THREE-WAY INTERACTIONS

	Interaction among Year, Assignment, and Sex	Interaction among Year, Assignment, and State	Interaction among Year, State, and Sex
Year	Women Administrators*	Administrators in Oregon†	Women in Oregon‡
1971-72	-3.49	-0.81	-0.06
1972-73	-4.67	1.34	-0.18
1973-74	-2.37	1.66	-0.48
1974-75	-0.17	0.96	-0.35
1975-76	1.39	-1.37	0.16
1976-77	2.77	-1.34	-0.17
1977-78	3.27	-0.61	0.46
1978-79	4.93	-0.17	0.75

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*Standardized-effect parameters for men teachers equal those for women administrators. Those for women teachers and men administrators are the negative of those for women administrators.

†Standardized-effect parameters for teachers in Colorado equal those for administrators in Oregon. Those for administrators in Colorado and teachers in Oregon are the negative of those for administrators in Oregon.

‡Standardized-effect parameters for men in Colorado equal those for women in Oregon. Those for men in Oregon and women in Colorado are the negative of those for women in Oregon.

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Analysis of the Unaggregated Data

Table 8 summarizes the testing of various models with the unaggregated data. Models 3, 5, and 6 hold. Interestingly enough, Model 9, which includes the two three-way interactions common to all the models, does not fit the data. Because Model 6 has a slightly better fit, the standardized-effect parameters for Model 6 are given in Table 9 and then discussed.

TABLE 8

SUMMARY OF FIT OF SELECTED MODELS TO DATA ON SEX SEGREGATION IN THE EDUCATION PROFESSION, OREGON AND COLORADO, 1971-72 THROUGH 1978-79

Model	Chi-square	Df	P
1. Year, assignment, state, sex	34,661.016	115	0.000
2. Year-assignment, year-sex, year-state, assignment-sex, assignment-state, sex-state	191.498	73	0.0000
3. Year-assignment-sex, year-assignment-state, year-sex-state, assignment-sex-state	18.833	21	0.5959
4. Year-assignment-state, year-sex-state, assignment-sex-state	128.718	42	0.000
5. Year-assignment-sex, year-sex-state, assignment-sex-state	44.041	42	0.3852
6. Year-assignment-sex, year-assignment-state, assignment-sex-state	25.671	28	0.5911
7. Year-assignment-sex, year-assignment-state year-sex-state	48.100	24	0.0025
8. Year-assignment-sex, year-assignment-state, sex-state	51.810	31	0.0110
9. Year-assignment-sex, assignment-sex-state	104.967	56	0.00008
10. Year-assignment-sex, year-sex-state, year-assignment	151.299	48	0.0000
11. Assignment-sex-state, year-sex-state, year-assignment	156.025	63	0.0000
12. Year-assignment-sex, year-state, assignment-state, sex-state	80.759	52	0.0065
13. Year-sex-state, year-assignment, assignment-sex, assignment-state	183.529	66	0.0000
14. Assignment-sex-state, year-assignment, year-sex, year-state	165.740	70	0.0000
15. Year-position-sex-state	0.000	0	-1.000

TABLE 9

STANDARDIZED-EFFECT PARAMETERS FOR INTERACTIONS IN MODEL 6, TABLE 8

TWO-WAY INTERACTIONS

Year by Assignment	Superintendent, Assistant Superintendent	Principal, Assistant Principal	Director, Supervisor, Coordinator, Assistant	Teacher	Total
1971-72	0.201	-0.981	-0.496	1.042	-2.194
1972-73	0.379	-2.565	0.144	1.652	-2.375
1973-74	-0.071	-0.851	-0.106	1.266	-1.424
1974-75	1.454	-2.669	-0.120	-0.969	1.400
1975-76	-0.901	1.503	0.930	0.055	0.079
1976-77	0.084	1.301	-0.422	-1.217	1.814
1977-78	-1.064	2.755	0.366	-0.182	0.528
1978-79	0.498	1.392	-0.518	-2.427	3.230
Sex by Assignment					
Women	-23.994	-12.408	22.693	59.464	-48.717
State by Assignment					
Oregon	3.647	-5.680	-1.137	-3.177	1.390

(continued)

TABLE 9, continued

Year by State		Year by Sex
	Oregon	Women
1971-72	0.117	-0.440
1972-73	0.327	-1.223
1973-74	0.258	-0.830
1974-75	0.070	1.216
1975-76	-0.402	-0.598
1976-77	-0.605	0.850
1977-78	-0.048	-0.243
1978-79	0.317	2.061

Sex by State		
	Oregon	Colorado
Women	0.082	-0.082
Men	-0.082	0.082

(continued)

TABLE 9, continued

THREE-WAY INTERACTIONS

Year by Assignment by Sex	Superintendent, Assistant Superintendent	Principal, Assistant Principal	Director, Supervisor, Coordinator, Assistant	Teacher
1971-72: Women	-0.173	-0.745	0.233	1.084
1972-73: Women	0.056	-2.027	0.540	1.554
1973-74: Women	-0.036	-0.662	-0.035	0.877
1974-75: Women	1.636	-2.449	-0.625	-1.190
1975-76: Women	-0.814	1.286	0.603	0.378
1976-77: Women	0.200	1.074	-0.542	-1.176
1977-78: Women	-0.932	2.360	0.268	-0.049
1978-79: Women	0.718	0.990	-0.803	-2.311
Year by Assignment by State				
1971-72: Oregon	0.020	0.001	-0.284	0.248
1972-73: Oregon	-0.312	0.384	0.711	-0.294
1973-74: Oregon	-0.015	-0.157	0.597	-0.426
1974-75: Oregon	0.008	0.017	0.368	-0.451
1975-76: Oregon	0.104	0.102	-0.725	0.353
1976-77: Oregon	0.150	0.168	-0.913	0.368
1977-78: Oregon	0.016	-0.147	-0.013	0.123
1978-79: Oregon	0.044	-0.430	0.325	-0.009
Assignment by Sex by State				
Oregon: Women	2.1006	-3.606	0.051	-2.221
Colorado: Women	-2.1006	3.606	-0.051	2.221

NOTE: Because the categories of sex and state are dichotomous, the standardized-effect parameters for one sex and for one state are the negative of those for the other sex and state. Thus, often only the parameters for one sex or state are included in the table.

An examination of these standardized-effect parameters shows that there was an increase in the number of educational professionals from 1971-72 to 1978-79 in the two states, except for two slight, apparently temporary drops (1974-75 to 1975-76 and 1976-77 to 1977-78). Teachers were by far the most common category of employee, followed by principals, with superintendents being the least common category. The larger standardized-effect parameter for men indicates not that there were more men than women in total, but that, when adjustment is made for other variables in the analysis (and especially the position of assignment), men were overrepresented. Oregon had slightly more professionals than Colorado, although the difference was not statistically significant.

The effects for the two-way interactions indicate that the states had about the same sex ratio in education (sex by state) and that they had similar growth in the education profession over the years in the sample (year by state). There are some significant effects in the interaction between assignment and state, however, indicating that Oregon tended to have more superintendents, but fewer principals and teachers, than Colorado did. That may simply be the result of greater consolidation of school districts in Colorado than in Oregon. The interaction between year and assignment shows a few fluctuations that have significant effects; in general, principals were less common than would be expected in earlier years, and teachers were somewhat less common later. The interaction between year and sex shows significant effects only in the last year, 1978-79, when more women than would be expected by chance were hired than had been the case in earlier years. The two-way interaction between assignment and sex is the most striking, in that women were underrepresented in the superintendent and principal positions, but overrepresented in the director/supervisor slots and teaching positions--a pattern that has been found in many studies.

For this comparison, as for that of the four states, it is again necessary to examine the effect parameters for the three-way interactions. The three-way interaction among year, assignment, and sex shows that sex segregation in the education profession for the two states combined tended to vary somewhat from one year to the next, although this variation involved mainly the principal and teacher positions in only a few years. The three-way interaction among year, assignment, and state has no effects significantly different from zero, indicating that there was no tendency for the relative representation of each administrative position to vary from one year to the next.

Finally, the three-way interaction among assignment, sex, and state shows several significant effects, indicating that, over all the years in the sample, the sex segregation in administrative positions differed from one state to the other; however, the pattern varied. Women superintendents were somewhat more common in Oregon than in Colorado; women principals, assistant principals, and teachers were somewhat more common in Colorado than in Oregon. There was no difference between the states in women's representation in the director/coordinator/supervisor slots. In general, then, both the four-state and the two-state comparisons suggest that the changes in the representation of women in administration in Oregon, at least through 1978-79, were not different from those in other states.

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THE REPRESENTATION OF WOMEN IN GRADUATE PROGRAMS OF EDUCATIONAL ADMINISTRATION

As noted in Chapter 6, in summer 1979 a short questionnaire was sent to all departments of educational administration listed in the College Bluebook in Oregon, California, Washington, Idaho, and Colorado.[3] The questionnaire requested information about the number of women and men enrolled in each level of the schools' educational administration program from 1974-75 through 1978-79, and asked if any of a variety of recruitment strategies had been employed by the departments to attract women students. Figure 1 shows the schedule and accompanying letter.

By October 1979, 13 of the 23 schools had returned the questionnaire. Both public and private institutions were included in the sample, and there was no bias toward a larger return rate from one type of school or the other. With the exception of Colorado, where data were available from only one school, one-half to two-thirds of the schools contacted in each state reported and provided data. Only one of the responding schools, a small private one, indicated that data were unavailable. One school had information available only on admissions and not on enrollments; data from that school are not included in the log-linear analysis, but are used in a separate analysis of admissions. Separate data on students enrolled only for a certificate were available from only five schools, including one in each state. Data on students enrolled for degrees were available for all 12 schools that provided data. One of these schools, however, did not differentiate enrollment by levels, but indicated that such information was similar for all parts of the program. The raw data used in the analyses are given in Table 10.

All levels of training (certification, nondegree, master's, and doctor's) are collapsed into one category for the log-linear analysis. Data for 11 schools (excluding the one with admission data only) are used for this analysis. Data from five schools are used in the comparison of enrollment in certification programs. Data from 11 schools are used in the comparison of enrollment in degree programs. Data from two schools were available for the comparison of admissions. In general, the results from all of the analyses reported below are similar. They indicate that there was little change in the representation of women students in Oregon that was not also found in other states. In addition, Oregon usually had a smaller proportion of women enrolled than the other states did.

FIGURE 1

SURVEY OF DEPARTMENTS OF EDUCATIONAL ADMINISTRATION

July 31, 1979

Dear Department Head:

As part of the final evaluation of the Sex Equity in Educational Leadership (SEEL) Project, I am comparing the changes in the representation of women in departments of educational administration in Oregon colleges with changes in departments in schools in neighboring states, and in other states that have similar demographic characteristics. I would greatly appreciate your assistance in this project by your completion of the attached form that asks for the number of women and men enrolled in your program in the last five years. I am also interested in learning if you have used any special attempts to attract women students in recent years and the results of those efforts. Because this information is usually included in periodic affirmative action reports, I hope that it may be easily obtained.

The results will be aggregated by state so that no one school will be directly linked with the results. A brochure that describes the purposes and goals of the SEEL Project is enclosed for your information.

Thank you very much for your help. If you have any questions, please feel free to contact me at (503) 686-5005 or (503) 466-5060, or our project secretary, Nancy Gubka, at (503) 686-5074. I would appreciate receiving your response within the next two weeks, if possible. A stamped envelope, addressed to me, is enclosed for your convenience.

Sincerely,

(Signed)

Jean Stockard, Ph.D.
Research Associate, CEPM
Assistant Professor, Sociology

JS/ng

Encl.

FIGURE 1, continued

SURVEY OF DEPARTMENTS OF EDUCATIONAL ADMINISTRATION

School ____________________ Telephone ____________

Person completing this form ____________ Position ____________

1. Over the last five years, how many women and how many men have been enrolled in the Department of Educational Administration at your school at each of the following levels? (If these levels of study do not correspond to those offered at your institution, please alter those which are appropriate for your department.)

	Academic Years				
Levels of Study	1974-75	1975-76	1976-77	1977-78	1978-79
Master's program					
Males					
Females					
Total					
Doctor's program					
Males					
Females					
Total					
Certification program (nondegree)					
Males					
Females					
Total					

2. In the last five years, has your department used any methods such as the following to attract women students?

	Have you used this method?		When did you use it?		What were the results?
Method	Yes	No	Beginning date	Ending date	
Recruitment letters to individual women					
Letters to people in the field asking them to recommend women students					
Advertisements soliciting women students in professional publications					
Recruiters' visits to meetings and conventions of educators					
Other (please specify)					

3. Would you like to receive a copy of the report of these findings?

Yes _____ No _____

Thank you for your help.

TABLE 10

WOMEN AND MEN ENROLLED IN CREDENTIAL AND DEGREE PROGRAMS IN EDUCATIONAL ADMINISTRATION, FIVE WESTERN STATES, 1974-75 TO 1978-79

Credential Programs	1974-75		1975-76		1976-77		1977-78		1978-79	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
Oregon*	176	25	275	49	348	68	519	128	550	166
California	10	10	30	15	20	20	15	25	15	25
Colorado	34	21	48	26	135	111	77	77	51	55
Idaho	15	9	13	7	9	8	7	6	6	5
Washington	63	30	42	23	37	29	39	32	34	36
M.A. and Ph.D. Programs										
Oregon	n.d.†		n.d.		n.d.		24	18	40	25
California	50	29	67	47	56	33	69	48	69	48
Colorado	33	21	48	26	135	111	77	77	56	60
Idaho	85	100	89	83	89	88	79	92	58	85
Washington	149	49	135	47	131	42	110	64	125	50

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*Does not include people admitted before 1974. See Chapter 4 for a discussion of how this affects the results.

†n.d. denotes no data.

Analysis of the Aggregated Data

Table 11 reports the results of testing the fit of each of the possible models of interaction among the sex of the student, the state of the school, and the year. Model 2, that of three two-way interactions, has a marginal fit ($p = .0972$). The only other available fitted model, Model 9, is the totally fitted one of a three-way interaction. Table 12 gives the standardized-effect parameters for Model 2, and Table 13 gives the standardized-effect parameters for Model 9.

TABLE 11

SUMMARY OF FIT OF MODELS APPLIED TO DATA ON WOMEN AND MEN IN EDUCATIONAL ADMINISTRATION TRAINING PROGRAMS, OREGON AND OTHER STATES, 1973-74 THROUGH 1978-79

Model	Information Statistics	Df	Probability
1. State, year, sex	689.67	13	0.00
2. State by year, state by sex, year by sex	7.850	4	0.10
3. State by year, state by sex	46.108	8	0.00
4. State by year, year by sex	385.458	5	0.00
5. State by sex, year by sex	342.043	8	0.00
6. State by year, sex	389.600	9	0.00
7. State by sex, year	346.182	12	0.00
8. Year by sex, state	685.531	9	0.00
9. State by year by sex	0.000	0	-1.00

TABLE 12

STANDARDIZED-EFFECT PARAMETERS FOR INTERACTIONS IN MODEL 2, TABLE 11

	1974-75	1975-76	1976-77	1977-78	1978-79	Total
State by Year						
Oregon	-8.07	-3.59	-2.76	7.69	12.75	-19.31
Other	8.07	3.59	2.76	-7.69	-12.75	19.31
Total	-10.13	-5.18	1.54	9.80	10.87	
Year by Sex						
Men	2.32	2.23	0.58	-2.36	-4.85	26.26
Women	-2.32	-2.23	-0.58	2.36	4.85	-26.26
	Men	Women				
State by Sex						
Oregon	16.81	-16.81				
Other	-16.81	16.81				

TABLE 13

STANDARDIZED-EFFECT PARAMETERS FOR INTERACTIONS IN MODEL 9, TABLE 11

TWO-WAY INTERACTIONS

	1974-75	1975-76	1976-77	1977-78	1978-79	Total
State by Year						
Oregon	-8.23	-3.37	-2.71	7.26	13.76	-19.31
Other	8.23	3.37	2.71	-7.26	-13.76	19.31
Total	-10.11	-4.97	1.54	9.38	11.71	
Sex by Year						
Men	2.81	1.96	0.48	-2.37	-5.36	26.22
Women	-2.81	-1.96	-0.48	2.37	5.36	-26.22

	Oregon	Other
Sex by State		
Men	16.97	-16.97
Women	-16.97	16.97

THREE-WAY INTERACTION

	1974-75	1975-76	1976-77	1977-78	1978-79
State by Year by Sex					
Women in Oregon*	-0.96	0.19	-0.15	-1.01	2.58

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*Standardized-effect parameters for men in Colorado equal those for women in Oregon. Those for men in Oregon and women in Colorado are the negative of those for women in Oregon.

The standardized-effect parameters for Model 2 of three two-way interactions show, as would be expected, that there were relatively more students in states other than Oregon, that the number of students increased over the years, and that there were more men than women enrolled overall. The two-way interaction between state and year shows that Oregon had more students relative to the other states in the later years of the analysis, a result of the way Oregon's data were compiled (see Chapter 4). The parameters also show that Oregon had relatively fewer women enrolled than the other states did, and that women students became more common in later years. Because this model suggests that the pattern of increased female enrollment occurred equally in both Oregon and the other states, it suggests that SEEL had no special effect on enrollments.

Because Model 2 in Table 11 has only a marginal fit, Table 13 presents the standardized-effect parameters for Model 9. The parameters in the zero-order and two-way interactions are similar to those for Model 2; however, the parameters for the three-way interaction indicate that in the last year of the SEEL Project, there was an increase in the representation of women enrolled in schools in Oregon relative to the enrollment in other states. The percentages presented in Chapter 6 showed a rise from 1977-78 to 1978-79 in Oregon and a slight drop in the other states. The enrollment in the other states, however, was close to 50 percent female by that year, whereas the enrollment in Oregon was not yet 25 percent female.

Analysis of the Unaggregated Data

Table 14 reports the results of testing the various log-linear models of interaction among the years, the sex of the students, and the states represented in the data set. Model 8, that of all possible two-way interactions (state by year, state by sex, and year by sex) is the simplest model that holds. This indicates that the number of students in each state varied from year to year, that the representation of women varied from state to state, and that the representation of women varied from year to year. The absence of a three-way interaction indicates that the year-to-year changes were similar for all states and that there were no shifts unique to Oregon.

Table 15 gives the standardized-effect parameters for this fitted model, Model 8. These parameters show that, as would be expected, some states had more students than others did (see the parameters in the interaction of state by year). While overall there were more men than women students in the years studied, by the later years the number of women students was greater than would be expected by chance (the interaction of year by sex). Finally, the interaction between state and sex shows that Oregon had the lowest representation of women students.

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TABLE 14

SUMMARY OF FIT OF MODELS APPLIED TO DATA ON WOMEN IN GRADUATE PROGRAMS IN EDUCATIONAL ADMINISTRATION, OREGON, WASHINGTON, CALIFORNIA, COLORADO, AND IDAHO, 1974-75 THROUGH 1978-79

Model	X^2	Df	Probability
1. State, year, sex	982.884	40	0.0000
2. State-year, sex	514.830	24	0.0000
3. State-sex, year	523.894	36	0.0000
4. Sex-year, state	978.746	36	0.0000
5. State-year, state-sex	55.835	20	0.0000
6. State-year, year-sex	510.688	20	0.0000
7. State-sex, year-sex	519.756	32	0.0000
8. State-year, state-sex, year-sex	16.204	16	0.4388
9. State-year-sex	0.000	0	-1.0000

TABLE 15

STANDARDIZED-EFFECT PARAMETERS FOR INTERACTIONS IN MODEL 9, TABLE 14

	1974-75	1975-76	1976-77	1977-78	1978-79	Total
State by Year						
Oregon	-7.060	-3.231	-3.247	6.875	12.212	20.683
Washington	5.052	1.559	-2.728	-2.951	-1.286	-2.994
California	2.636	3.084	-3.657	-1.682	-0.642	-1.647
Colorado	-4.303	-3.117	11.115	2.349	-1.891	-12.455
Idaho	6.824	2.801	-1.371	-3.319	-4.916	1.223
Total	-7.936	-3.850	4.241	6.238	3.621	
Year by Sex						
Men	2.699	2.440	1.076	-2.284	-4.768	17.721
Women	-2.699	-2.440	-1.076	2.284	4.768	-17.721

	Oregon	Washington	California	Colorado	Idaho
State by Sex					
Men	16.442	5.474	-4.193	-4.974	-10.973
Women	-16.442	-5.474	4.193	4.974	10.973

Because the pattern in Table 15 does not conform to that which would be expected if SEEL did have an impact on graduate school enrollments, two additional comparisons are presented. First, it could be possible that the aggregation of students in all programs masks some important differences between Oregon and other states. Tables 16 and 17 compare the representation of women in certification programs and in Ph.D. and M.A. programs for the schools and states for which there were data. Over the five-year period, schools in all the states generally reported an increase in the enrollment of women in certification programs. While Oregon's representation of women in certification programs was noticeably less than that in the other states, the increase over the years in Oregon was similar to that found elsewhere. The comparison of Ph.D./M.A. enrollments shows some increase over the years, although the pattern was not as consistent or marked as the pattern of enrollment in certification programs was. However, because it is those seeking administrative certificates rather than those seeking academic degrees who usually actually seek employment in the schools,[4] the increase in certification enrollment is probably a better indicator of the extent of changes in the applicant pool for administrative jobs.

TABLE 16

PERCENTAGE OF WOMEN ENROLLED IN CERTIFICATION PROGRAMS IN GRADUATE SCHOOLS OF EDUCATIONAL ADMINISTRATION, FIVE WESTERN STATES, 1974-74 THROUGH 1978-79

	1974-75 (%)	1975-76 (%)	1976-77 (%)	1977-78 (%)	1978-79 (%)
Oregon*					
Women	12.4	15.1	16.3	19.8	23.2
Total N	201	324	416	647	716
Idaho					
Women	37.3	35.0	47.0	46.2	45.4
Total N	24	20	17	13	11
Washington					
Women	32.2	35.4	43.9	45.1	51.4
Total N	93	65	66	71	70
California					
Women	20.0	33.3	50.0	62.5	62.5
Total N	50	45	40	40	40
Colorado					
Women	39.0	35.0	45.0	50.0	52.0
Total N	55	74	246	154	106

*See Chapter 4 for an elaborated discussion of the data from Oregon.

TABLE 17

PERCENTAGE OF WOMEN ENROLLED IN M.A. AND PH.D. PROGRAMS IN GRADUATE SCHOOLS OF EDUCATIONAL ADMINISTRATION, FIVE WESTERN STATES, 1974-75 THROUGH 1978-79

	1974-75 (%)	1975-76 (%)	1976-77 (%)	1977-78 (%)	1978-79 (%)
Oregon					
Women	n.d.*	n.d.	n.d.	42.8	38.5
Total N				42	65
Idaho					
Women	54.0	48.2	49.7	53.8	59.4
Total N	185	172	177	171	143
Washington					
Women	24.7	25.8	24.3	36.8	28.6
Total N	198	182	173	174	175
California					
Women	36.7	41.2	37.1	41.0	41.0
Total N	79	114	89	117	117
Colorado					
Women	39.0	35.0	45.0	50.0	52.0
Total N	54	74	246	154	106

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*n.d. denotes no data.

Second, it could be possible that SEEL's request for data on enrollment, rather than on admissions, caused the most recent changes in Oregon to be unapparent. Table 18 presents data on the representation of women in entering cohorts at the University of Oregon and at a school in California for various times from 1973-74 through 1978-79. There are two problems with this data set that make generalizations difficult. First, the data on the representation of women at the University of Oregon are for a division that included not only educational administration, but also educational policy and higher education. Data for 1978-79 indicate that 18 percent was the actual proportion of women admitted to educational administration only, and that therefore the figures for Oregon given in the table probably overestimate the representation of women in the program. Second, the years for which data for the two schools were available are not identical. Data were available for the University of Oregon for 1973-74 through 1975-76 and for

1978-79; data for the California school were available for 1974-75 through 1978-79. Nevertheless, these data show patterns similar to those noted above; Oregon had fewer women represented than the other state did and, in this case, California had a sharper rise in women's representation than Oregon did.

TABLE 18

WOMEN IN NEW ADMITTANCES TO EDUCATIONAL ADMINISTRATION AT THE UNIVERSITY OF OREGON AND A CALIFORNIA SCHOOL, 1973-74 THROUGH 1978-79

	1973-74 (%)	1974-75 (%)	1975-76 (%)	1976-77 (%)	1977-78 (%)	1978-79 (%)
Oregon						
Women	25.0	32.0	22.6	n.d.*	n.d.	31.5
Total N	40	38	31	n.d.	n.d.	54
California						
Women	n.d.	42.0	49.6	55.6	59.1	57.7
Total N	n.d.	150	123	117	115	97

NOTE: Data for Oregon include programs of educational administration, educational policy, and higher education.

*n.d. denotes no data.

THE REPRESENTATION OF WOMEN AT ADMINISTRATORS' CONVENTIONS

As Chapter 4 noted, the proportion of women in the program of the meetings of the state administrators' organization increased significantly from 1976 to 1979. This final comparative analysis seeks to determine if that increase was unique to Oregon or represents part of a national trend. Table 19 gives the raw data used in the analysis.

Inspection of the percentage increases noted in Chapter 6 indicates that the increase seen in Oregon was not found in the national organization. The log-linear analysis, however, does not support that conclusion. Table 20 presents information on the fit of the data to possible models. The simplest model that fits the data is Model 7, having two two-way interactions: (a) between organization and sex and (b) between year and sex.

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TABLE 19

WOMEN AND MEN IN PROGRAMS OF ANNUAL MEETINGS, OREGON STATE AND NATIONAL ORGANIZATIONS OF SCHOOL ADMINISTRATORS, 1976-79

	1976	1977	1978	1979
Oregon				
Men	60	63	56	52
Women	14	15	18	24
Missing:* 7				
National				
Men	920	881	690	701
Women	127	125	152	112
Missing: 54				

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*Missing cases are those for which the sex of the participant could not be determined.

TABLE 20

SUMMARY OF FIT OF MODELS APPLIED TO DATA ON WOMEN IN PROGRAMS OF ANNUAL MEETINGS, OREGON STATE AND NATIONAL ORGANIZATIONS OF SCHOOL ADMINISTRATORS

Model	X^2	Df	Probability
1. Organization, year, sex	41.761	10	0.0000
2. Organization by year, sex	38.479	7	0.0000
3. Organization by sex, year	23.612	9	0.0000
4. Year by sex, organization	24.288	7	0.0010
5. Organization by year, organization by sex	20.329	6	0.0024
6. Organization by year, year by sex	21.005	4	0.0003
7. Organization by sex, year by sex	6.138	6	0.4079
8. Organization by year, organization by sex, year by sex	3.566	3	0.3123
9. Organization by year by sex	0.000	0	-1.0000

This indicates that the representation of women varied from one organization to the other and from year to year. Table 21 presents the standardized-effect parameters for Model 7. These effect parameters show that women were much more likely to be on the program in Oregon than at the national meetings, and that women's representation grew over the years, peaking in 1978. The fact that use of a three-way interaction was not necessary to fit the data indicates that the differences in the rates of change between the Oregon group and the national group were not so extensive that chance could be ruled out as their cause. This result may well have occurred only because of the small size of the Oregon meetings in relation to the size of the national meetings. Because the actual percentage change in women's representation in Oregon was so large, it is suggested that the change is substantively, if not statistically, significant, and should not be discounted.

TABLE 21

STANDARDIZED-EFFECT PARAMETERS FOR THE INTERACTIONS IN MODEL 7, TABLE 20

	Oregon	National	Total
Organization by Sex			
Men	-4.448	4.448	20.730
Women	4.448	-4.448	-20.730
Total	-31.912	31.912	

	1976	1977	1978	1979
Year by Sex				
Men	1.437	1.189	-2.306	-0.374
Women	-1.437	-1.189	2.306	0.374
Total	0.861	0.502	0.178	-1.496

SUMMARY

In general, the comparative analyses presented in this appendix suggest that a trend toward greater sex equity in educational administration could be seen, in Oregon and in other western states, in the years under consideration. Although equity is far from a reality in employment, an almost equal representation of women and men has been achieved in many administrative training programs. As the pool of potential female administrators increases, even greater changes in hiring may occur. In some respects, especially regarding enrollment in training programs and hiring in administrative positions, Oregon has had less equity than other states have, both now and historically. Yet changes have occurred in Oregon. During the time of the SEEL Project, the enrollment of women in the certification program in administration increased, and women were much more often represented at administrators' conventions. While SEEL made little or no direct efforts to recruit women to the certification program, the project was involved in the original efforts to increase women's participation at the administrators' conventions. Thus, while SEEL probably had little impact on changes in hiring and in training programs in Oregon, the project may well have had some effect on the attitudes of gatekeepers. Any final conclusions on the effects of SEEL, however, must wait for changes in future years.

NOTES

1. For a discussion of this analysis in another context, see Kenneth M. Kempner, "A Conceptual Framework for the Evaluation of Planned Social Change," Ph.D. dissertation, University of Oregon, 1979.

2. The effect for Washington, however, is exaggerated in a negative direction because data were missing for Washington for 1977-78 and 1978-79. These missing data do not affect the general conclusions obtained in the analyses.

3. *The College Bluebook: Degrees Offered by College and Subject*, 16th ed., vol. 3 (New York: Macmillan, 1977).

4. Sakre K. Edson, "Differential Experiences of Male and Female Aspirants for Public School Administration: A Closer Look at Perceptions in the Field," paper presented at the annual meeting of the American Educational Research Association, San Francisco, April 1979.

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